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ABSTRACT

Seven background papers prepared by the California Postsecondary Education Commission on student charges, student financial aid, and access to postsecondary education are presented. These papers provide information for discussions prior to the Commission's response to Assembly Concurrent Resolution number 81. Topics are as follows: the authority that can set student fees in California public postsecondary institutions; fee amounts; changes in and impacts of tuition, admissions requirements, and financial aid policy at the City University of New York in 1975-1976; evidence about the impact of fees and other variables on the demand for higher education; assessing the impact of student charges on enrollment and financial aid; alternative policies for setting student charges; the Master Plan for Higher Education in California, 1960-1975; California's multifaceted approach to the provision of access to undergraduate education since 1960; the provision of special services to disadvantaged groups to enhance their access to higher education; sources of funds for California's colleges and universities; the role of state funds in financing postsecondary education and trends in financing; and issues that pose problems for state finance. (SW)

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BACKGROUND PAPERS ON STUDENT CHARGES, STUDENT FINANCIAL AID, AND ACCESS TO POSTSECONDARY EDUCATION

A SUPPLEMENT TO THE COMMISSION'S REPORT TO THE GOVERNOR AND LEGISLATURE IN RESPONSE TO ASSEMBLY CONCURRENT RESOLUTION 81

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CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

vol. 2

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BACKGROUND PAPERS
ON STUDENT CHARGES, STUDENT FINANCIAL AID, AND ACCESS TO POSTSECONDARY EDUCATION

A Supplement to the Commission's Report
to the Governor and Legislature in Response
to Assembly Concurrent Resolution 81

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
1020 Twelfth Street, Sacramento, California 95814

Commission Report 82-16

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PREFACE

When the California Legislature asked the California Postsecondary Education Commission in March 1982 to study "the impact of student charges on access to public postsecondary education," the staff of the Commission prepared several working papers to stimulate discussion of specific facets of the topic. Drafts of the papers were circulated to members of the study's Advisory Committee and others concerned with the issues. Revised versions of these papers appear in this supplement to the Commission's report.

The first of the papers offers general background information to answer three questions: (1) Who has the authority to set student fees in California's public postsecondary institutions? (2) What fees do these institutions charge? and (3) What trends are evident in the amounts of these fees?

The second paper examines changes in tuition, admissions requirements, and financial aid policy at the City University of New York in 1975-76 and their impact on application rates, eligibility and enrollment patterns among first-time freshmen, and overall enrollment in that system's two-year and four-year colleges. It illustrates both the potential and pitfalls inherent in using a case study to assess the impact of student charges on access.

The third paper provides a brief nontechnical review of empirical evidence about the impact of fees and other variables on the demand for higher education. It then describes the variables that need to be considered in any assessment of the impact of student charges on enrollment and financial aid, both from the standpoint of individual students and of institutions.

The fourth paper examines several alternative policies for setting student charges, including basing charges on: (1) the cost of instruction, (2) student level (lower division, for example, or upper division or graduate), (3) comparisons with similar institutions elsewhere, (4) distinctions between credit and noncredit courses, (5) the anticipated future earnings of students, and (6) anticipated budget deficits.

The fifth paper focuses on the Master Plan for Higher Education in California, 1960-1975, and includes a review of the major studies which preceded the Plan, the problems selected for study in preparing the Plan, its major recommendations, and subsequent actions the Legislature has taken during the more than 20 years in which the Plan has served as the keystone of State policy for higher education.

The sixth paper describes the States's multifaceted approach to the provision of access to undergraduate education since 1960. The five major facets identified are: (1) physical proximity to campuses, (2) low (or no) student charges, (3) open admission to the Community Colleges and assurance of transfer to upper division programs, (4) control of enrollments in the public segments, and (5) student financial aid. Attention is also directed to the fairly recent provision of special services to disadvantaged groups to enhance their access to higher education.

The seventh and final paper explains the sources of funds for California's colleges and universities, the role of State funds in financing postsecondary education, trends in State finance of postsecondary education, and issues that pose problems for State finance.

Together, these seven papers have already provided a technical backdrop for the discussions leading to the Commission's response to ACR 81, and it is hoped they will continue to provide a useful context for the careful reader of the Commission report.

ONE

STUDENT FEES AND FEE POLICIES IN CALIFORNIA

Who has the authority to set student fees in California's public postsecondary institutions? What fees do these institutions charge? And what trends are evident about the amount of these fees? This paper offers general background information to help answer these three questions.

THE AUTHORITY TO SET STUDENT FEES IN CALIFORNIA

Differences of authority exist among the University of California, the California State University, and the California Community Colleges regarding student charges.

The University of California

The 1879 Constitution and the Revisions of 1918 gave to The Regents of the University of California "full powers of organization and governance," including the power to set the level of student tuition and fees. Nevertheless, the Legislature and the Governor can, if they choose, severely limit the Regents' options through budget control language and General Fund appropriations to the University. This happened in 1899 when Governor Gage persuaded the Regents to rescind a tuition fee they had just approved, in 1970 when Governor Reagan convinced the Regents to double student fees, and last year when the Legislature imposed a $10.5 million undesignated budget cut that forced the Regents to raise fees.

The California State University

The Trustees of the California State University have the statutory authority "by rule [to] require all persons to pay fees . . . and charges for services, facilities or materials provided by the Trustees to such persons . . . ."--provided that "the total tuition fees charged any [resident] students of the California State University . . . shall not exceed twenty-five dollars per year" (Section 89703, Education Code). Unlike the University, where the Regents retain revenues from student fees, State University fee revenues are considered to be offsets to State General Fund appro-

priations and are not retained by the Trustees. The authority to change fees thus resides with the Trustees, yet the Legislature is involved if any major changes in fee levels are proposed.

The California Community Colleges

Only the Legislature has the power to set permissive fees and to determine their maximum levels for State-funded operations of the Community Colleges. However, local governing boards can decide whether or not to impose such fees. Currently, 18 fees are authorized by the Legislature that Community Colleges may charge, but until the last several years most local boards elected to use local tax revenues instead. Thus, boards can charge fewer fees or lower fees than the maximum level authorized, and they retain the authority to set fees for community services and other non-credit courses which do not receive State support; but they cannot impose any fees for State-funded operations that the Legislature has not authorized or charge more than the authorized level. None of the currently authorized fees for State-supported courses are for direct instructional purposes, although certain courses in some districts are subject to instructional materials fees.

KINDS OF STUDENT FEES AND THEIR USE

"Tuition" generally refers to a charge levied on students to help defray instructional costs. California policy has been to use student charges for purposes complementary to, but not a part of, the instructional program. Thus, students help pay the cost of student services, but do not help fund instruction. None of the three public segments currently charges tuition to students who are California residents, except for those taking community service or extension courses.

Both the University and the State University charge tuition, however, for nonresident or out-of-state students. Although waived for some graduate students from other states as a form of financial aid, nonresident tuition at the University is $2,880 for the 1981-82 academic year and will be raised to $3,150 in 1982-83. At the State University, the nonresident tuition charge is $2,835 this year and will be increased to $3,150 in 1982-83. In addition to paying tuition, nonresident students in both segments are charged the same fees as resident students. The Community Colleges make two kinds of "nonresident charges:" (1) charges for resident students attending out-of-district institutions--generally paid by the district of residence to the district of attendance, and (2)

nonresident tuition paid by nonresident students to the college they attend. The amount of nonresident tuition charged varies from district to district.

University of California Fees

The University of California presently charges students a Registration Fee, an Educational Fee, and a variety of Student Activity Fees. According to policies adopted by the Regents, income from the Registration Fee "shall continue to be used for services, other than financial aid, which benefit the student and which are complementary to, but not a part of, the instructional program." Until 1977-78, a portion of the Registration Fee supported the cost of administering the University's financial aid programs, but when the State refused to allow this cost to be shifted to General Fund support, the Regents decided to support administration of financial aid from Educational Fee income. Until 1978-79, a small portion of the Registration Fee income was also spent on instruction and departmental research laboratory costs, but at that time these activities were shifted to General Fund support.

The University established its Educational Fee in 1970. Until recently, it used the fee primarily to finance capital outlay projects, although the fee also helped support various operating programs. In 1976, the Regents adopted a policy that "Educational Fee income shall be used exclusively for support of student financial aid and related programs." In July 1981, the Regents approved the first increase in the Educational Fee since 1971 to (1) offset a permanent $10.5 million reduction in 1981-82 State General Fund support for student services programs, and (2) provide an increase for student financial aid programs. At that time, the Regents modified the 1976 policy to use the fee to help support "those centrally funded student services programs which lost State General Fund support," including programs in the areas of social and cultural events, supplemental educational services and counseling, and career guidance.

In 1981-82, the University used $36.96 million in Educational Fee revenues to provide student financial aid grants and provided an additional $5.85 million in Educational Fee deferrals. It spent $4.45 million of Educational Fee revenues on student affirmative action programs, $7.77 million for student financial aid administration, and $2.88 million for student loan collection. It spent the rest of these revenues to cover $6.56 million in other budget shifts from General Funds and to offset $5.00 million of the current year one-time 2 percent budget reduction.

University nonresident tuition revenues are considered to be offsets against State appropriations for instruction and other state

fund operations, but revenues from both the Registration and Educational Fees are generally considered to be revenue in addition to State appropriations, tied directly to the expenditures of the offices and activities which they support, and thus are kept and expended by the University and its campuses.

Individual campuses of the University also charge a variety of Student Activity Fees, up to the limit adopted by the Regents, to help finance a large number of student programs, student organizations, and facilities for student activities. Such fees vary from campus to campus, and the income from them is retained by each campus to support its own distinctive mixture of student activities.

State University Fees

In the State University, students are expected to pay two general kinds of fees: a Student Services Fee and a Student Activity Fee. The Student Services Fee, once called the Materials and Services Fee, corresponds most closely to the Registration Fee at the University. Used primarily to support student services, it is based on the operating costs for counseling, testing, career planning and placement, social and cultural development, health services, financial aid administration--but not financial aid grants themselves,--housing administration, and on half of the existing costs of operating the Dean of Students' office.

Until 1979-80, a portion of the Student Services Fee also covered costs for "instructional supplies and audiovisual materials." Beginning in 1975-76, however, the Fee was held constant for four years until the General Fund absorbed the full cost of these supplies and materials. Until recently, the Trustees elected to maintain a two-level fee structure for the Student Services Fee whereby part-time students taking six units or less per term are charged a lower Student Services Fee than other students. Since the instructional supplies and materials portion of the Fee were phased out in 1978-79, a special Chancellor's Task Force on the Student Services Fee recommended in November 1981 that this differential be eliminated beginning in 1982-83. This recommendation was adopted by the Board of Trustees.

Another special Chancellor's Task Force--this one on a New Student Fee--reported in December 1981 on a fee designed to enable the State University to (1) offset proposed reductions in General Fund support during the 1982-83 academic year, and (2) create a source of financial aid grant funds. It recommended the adoption of a new "State University Emergency Fee" that would be sufficient to make up the difference between a desired or program maintenance level of

support and State appropriations. The new fee would be differentiated for students taking 0 to 5.9 units and those taking 6 units and above. Further, a portion of the revenue realized from the new fee would be used to provide financial aid for needy students enrolled for at least a half-time load in a manner similar to the current University of California Educational Fee aid program.

Like the University, the State University's nonresident tuition revenues are considered to be offsets against State appropriations for instruction and other State fund operations. However, unlike the University, the revenues from the State University's Student Services Fee are not retained by the system and its institutions, but are also considered to be offsets against State appropriations. State University campuses retain only the income from their Student Activity Fees.

California Community College Fees

Aside from nonresident tuition as well as fees for community service classes and activities, none of the other fees that the Community Colleges are authorized to charge are normally considered in discussions of tuition and required fees. Instead, they are either small incidental or "users' fees" that are common in the University and State University as well, but are not charged to all students as a condition of attending. These incidental or miscellaneous users fees in the Community Colleges include: fees for parents using a campus child-development or day-care center, dormitory charges, fees for eye-protection devices, fees for field trips and for field-trip insurance, health fees (ranging from $1 to $5), instructional materials fees (generally lab breakage, art, or vocational education course materials fees), late application fees, materials fee for adult classes, medical insurance fees for athletes, parking fees, physical education fees for use of nondistrict facilities like golf courses and bowling alleys, program change fees, and student record or transcript fees. Since most of these are users' fees rather than required fees, their amount varies widely among students in the same institution and at different institutions because the courses and activities of individual students vary and because they are discretionary fees which some districts charge and others do not. In any event, whatever discussion is warranted on the subject of these fees, the debate should not confuse these users' fees in the Community Colleges and the four-year segments with the tuition and required fees charged students in public four-year institutions.

PAST, PRESENT, AND PROJECTED LEVELS OF STUDENT FEES IN CALIFORNIA

Table 1 compares the average required fees for resident undergraduates and the tuition and required fees for nonresident undergraduates in each of the three public segments from 1972-73 to 1982-83. Table 2 provides the comparison figures for graduate students in the two senior segments during this same period. In both tables, the figures from 1972-73 to 1981-82 are actual levels: those for 1982-83 are taken from the Governor's Budget proposals and from Regent and Trustee agenda items.

Undergraduate Charges

As Table 1 shows, after the introduction of the Educational Fee in 1970-71 at the University and its doubling under pressure from then Governor Reagan in 1971-72, total resident undergraduate student charges increased very little during the next five years. Student charges for residents increased by approximately 10 percent in 1977-78, increased minimally in 1978-79, and then remained unchanged in 1979-80. This pattern reveals that while the passage of Proposition 13 affected the University's overall level of General Fund support, it had almost no impact on the level of fees charged resident students for nearly three years. Indeed, it has only been in the current year and the coming year that State budget shortages have led to sharp increases in student charges for resident undergraduates. Nonresident undergraduates faced tuition increases a bit earlier with marked jumps in 1976-77, 1979-80, in the current year, and again next year.

In the State University, the story has been much the same, although the State University experienced no dramatic fee increases at the start of the decade and began the decade with substantially lower fees than the University. After a $33 increase in student charges for resident undergraduates in 1974-75, these charges increased by only $28 between 1974-75 and 1980-81. Part of the reason for this small increase was an agreement by the Trustees to hold the Student Services Fee constant at mid-decade until the remaining "instructional materials and audiovisual supplies" component of the Fee was transferred to General Fund support. The sharp increase faced by resident students in the current year stems from the $46 increase in the Student Services Fee and the emergency $46 Spring Semester surcharge designed to offset some of the revenues lost as a result of a 2 percent current year reduction in the State University's General Fund appropriations. The removal of the one-time surcharge, the $11 increase in the Student Services Fee for full-time students, and the modest $41 fee increase proposed in the Governor's Budget would leave the total fee level for resident students almost unchanged next year.

TABLE 1

UNDERGRADUATE TUITION AND REQUIRED FEES IN
CALIFORNIA PUBLIC INSTITUTIONS, 1972-72 TO 1982-83

	University of California Undergraduates		State University Undergraduates		Community Colleges All Students	
Year	Resident	Nonresident	Resident	Nonresident	Resident	Nonresident
1972-73	$644	$2,144	$161	$1,271	$0	n.a.
1973-74	644	2,144	161	1,366	0	n.a.
1974-75	644	2,144	194	1,494	0	n.a.
1975-76	648	2,148	194	1,494	0	n.a.
1976-77	648	2,543	194	1,634	0	n.a.
1977-78	710	2,615	194	1,769	0	n.a.
1978-79	731	2,636	206	1,916	0	1,500[a]
1979-80	731	3,131	204	2,004	0	1,500[a]
1980-81	775	3,175	222	2,382	0	1,500[a]
1981-82	997[b]	3,877[b]	320[c]	3,155[c]	0	1,500[a]
1982-83	1,194[d]	4,344[d]	326[d]	3,476[d]	0	1,500[a]

a. Average nonresident tuition charged by California Community Colleges.
b. Includes $25 one-time Spring Quarter surcharge to help cover 2 percent current year budget reduction.
c. Includes $46 one-time Spring Semester surcharge to help cover 2 percent current year budget reduction.
d. Figures reflect fee increases presented in Governor's Budget along with increases authorized by Regent or Trustee actions for 1982-83.

In contrast to the slow increase in charges for resident students in the State University over the past decade, nonresident undergraduates have experienced six significant increases since 1972-73. The largest occurred this year, when pressure from the Governor's Office for a $495 increase, an earlier Trustee decision to increase nonresident tuition by $180, and the regular fee increases all combined to produce a $772 increase in their overall student charges. As a result, actual revenues from nonresident tuition in 1981-82 were well below anticipated levels because of a drop in the number of nonresident students, and another $315 increase in nonresident charges is planned for 1982-83.

Graduate Student Charges

Tuition and required fees for graduate students in both segments have followed the trends evident among their resident and nonresident undergraduate counterparts. In fact, there is no fee differential at all between undergraduate and graduate students in the State University. Within the University, the only major difference is that graduate students are charged $60 more for their Educational Fee than undergraduates. This is offset in part by slightly lower Student Activity Fees for graduate students. Furthermore, since the amount of the graduate-undergraduate differential has not changed since the Educational Fee was first introduced, the relative size of the graduate-undergraduate differential has actually decreased as overall charges increased.

Undergraduate Charges Measured in Constant Dollars

Table 3 compares resident and nonresident tuition and required fees in the University and the State University in terms of actual dollars and constant dollars between 1972-73 and 1982-83, using the "Implicit Price Deflator for Personal Consumption Expenditures" (PCE) to adjust actual constant dollars. This index is employed instead of the Consumer Price Index (CPI) because the latter tends to overstate the actual inflation rate by assigning too great a weight to new housing and housing finance costs. The rate for the 1981-82 PCE is assumed to be 7.5 percent as in the UCLA School of Management Forecast, and the rate for 1982-83 is assumed to be 7 percent by the same source.

University of California: The contrast between actual and constant dollar charge increases is most dramatic for resident undergraduates at the University. With virtually steady actual fee levels between 1972-73 and 1976-77 and only modest upward adjustments in fees from then until 1981-82, increases in their charges exceeded

TABLE 2

GRADUATE TUITION AND REQUIRED FEES IN
CALIFORNIA PUBLIC INSTITUTIONS, 1972-73 TO 1982-83

	University of California Graduate Students		State University Graduate Students	
Year	Residents	Nonresidents	Residents	Nonresidents
1972-73	$704	$2,204	$161	$1,271
1973-74	704	2,204	161	1,366
1974-75	704	2,204	194	1,494
1975-76	708	2,208	194	1,494
1976-77	708	2,603	194	1,634
1977-78	770	2,675	194	1,769
1978-79	791	2,696	206	1,916
1979-80	791	3,191	204	2,004
1980-81	824	3,224	222	2,382
1981-82	1,043[a]	3,923[a]	320[b]	3,155[b]
1982-83	1,240[c]	4,390[c]	326[c]	3,476[c]

a. Includes $25 one-time surcharge for Spring Quarter to help cover 2 percent current year budget reduction.
b. Includes $46 one-time surcharge for Spring Semester to help cover 2 percent current year budget reduction.
c. Includes fee increases proposed in Governor's Budget along with increases planned by Regents or Trustees for 1982-83.

TABLE 3: UNDERGRADUATE TUITION AND REQUIRED FEES

University of California
Undergraduates

	Residents			Nonresidents		
Year	Actual Dollars	Constant Dollars	Index	Actual Dollars	Constant Dollars	Index
1972-73	$644	$644	1.000	$2,144	$2,144	1.000
1973-74	644	595	.924	2,144	1,979	.923
1974-75	644	538	.835	2,144	1,790	.835
1975-76	648	510	.792	2,148	1,691	.789
1976-77	648	485	.753	2,543	1,902	.887
1977-78	710	501	.778	2,615	1,846	.861
1978-79	731	480	.745	2,636	1,730	.807
1979-80	731	438	.680	3,131	1,878	.875
1980-81	775	425	.660	3,175	1,739	.811
1981-82	997[a]	508	.789	3,877[a]	1,975	.921
1982-83	1,194[c]	569	.884	4,344[c]	2,072	.965

a. Includes $25 one-time Spring Quarter surcharge to help cover 2 percent

b. Includes $46 one-time Spring Semester surcharge to help cover 2 percent

c. Figures reflect fee increases presented in Governor's Budget along with

IN CALIFORNIA PUBLIC INSTITUTIONS, 1972-73 TO 182-83

State University Undergraduates					
Residents			Nonresidents		
Actual Dollars	Constant Dollars	Index	Actual Dollars	Constant Dollars	Index
$161	$161	1.000	$1,271	$1,271	1.000
161	149	.924	1,366	1,261	.992
194	162	1.006	1,494	1,247	.981
194	153	.950	1,494	1,176	.925
194	145	.901	1,634	1,222	.962
194	137	.851	1,769	1,249	.983
206	135	.838	1,916	1,257	.991
204	122	.759	2,004	1,201	.944
222	122	.755	2,382	1,305	1.026
320[b]	163	1.013	3,155[b]	1,607	1.265
326[c]	155	.964	3,476[c]	1,658	1.304

current year budget reduction.

current year budget reduction.

increases authorized by Regent or Trustee actions for 1982-83.

the inflation rate in just one year--1977-78. The overall pattern evident in the index values was sharply downward in constant dollars through 1980-81 so that, in that year, resident undergraduates were paying the equivalent of one-third less than their counterparts in 1972-73 did. Moreover, these same years witnessed a dramatic expansion of both State and federal financial aid programs. The Cal Grant A program increased the number of available awards markedly during the early 1970s, and the Cal Grant B program enjoyed even greater increases in the latter part of the decade. Of more significance was the introduction of the BEOG program by the federal government in 1974, and the dramatic expansion in eligibility for it in 1978 with the passage of the Middle Income Student Assistance Act. Without question, the combination of dramatic increases in financial aid which decreased the net cost of attendance for many students and the steady decrease in student charges (in constant dollars) at the University between 1972 and 1981 produced a substantial decrease in the real cost of attendance there.

This pattern began to change significantly in 1981-82. First, the 28.6 percent increase in resident student charges this year was nearly four times greater than the 7.5 percent rate of inflation. Second, access to GSL loans was restricted for many University students, and State funding cuts meant that the Cal Grant A program did not cover the fee increases for the University's Cal Grant A recipients. The increase in resident fees proposed in the Governor's Budget is not accompanied with additional funds for the Student Aid Commission so that this increase too is likely not to be covered for the University's Cal Grant recipients. Further, major changes proposed by the Reagan Administration are likely to make many University students ineligible for Pell Grants and further reduce eligibility for guaranteed student loans in the future. While the proposed fee level for next year is still just 88.4 percent of the 1972-73 level (measured in constant dollars), it is more than one-third above the level of just two years ago. Coupled with changes in financial aid programs, the latest round of fee increases mean that the real cost of attending the University increased sharply this year and will again next year too.

The more regular and substantial fee increases in nonresident tuition and required fees at the University meant that total charges for these students declined fitfully between 1972-73 and 1980-81, but not at as rapid a rate as resident student charges. Both the constant dollar and index values for nonresident student charges reveal that increases in their total charges exceeded the rate of inflation in 1976-77, 1979-80, 1981-82, and will again next year. Moreover, the low point for nonresident charges when measured in constant dollars occurred in 1978-79, not 1980-81 as for residents. Nevertheless, the current year increases and those proposed for

next year will mean that nonresidents at the University will be paying nearly as much (96.5%) in total tuition and required fees as their counterparts did in 1972-73.

California State University: Resident undergraduates in the State University paid one-fourth less in real terms for student charges in 1980-81 than their counterparts did in 1972-73. Increases this year, including the $46 surcharge, returned State University fees to their earlier levels, and after adjusting for inflation, next year's proposed fee level will be 96 percent of the 1972-73 level for their resident students. However, with total resident fees that were only about one-fourth of the fee level in the University at both the start and end of this period, the actual dollar increases in State University fee levels have almost invariably been quite small for residents. For example, the $222 actual dollar increase in charges at the University this year exceeded the entire actual dollar increase in charges at the State University between 1972-73 and 1982-83.

Nonresident students in the State University have faced more dramatic fee increases in both actual and constant dollars than any other group of students during this period. In 1972-73, nonresidents paid $1,271 in tuition and required fees to attend, and in 1982-83 they will pay $3,476. Measured in constant dollars, nonresident tuition and required fees in the State University have rarely slipped much below the 1972-73 level, and starting in 1980-81 actually exceeded the earlier level. This year, nonresidents paid 26.5 percent more in real terms than their 1972-73 counterparts, and next year they are scheduled to pay 30.4 percent more.

Impact of the Base Year on Indexing

Indexing for inflation is a relative and not an absolute measure which depends on both the index used and the base year selected. Table 4 provides the same information as Table 3 and uses the same index--the PCE--but it employs 1977-78 instead of 1972-73 as its base year.

University of California: From the perspective of Table 4, the constant dollar decline in resident undergraduate charges at the University is not nearly so sharp as in Table 3. Current year students are paying 1.3 percent more than their counterparts in 1977-78 did, and next year residents will pay 13.4 percent more than similar students did in 1977-78. Nonresident students at the University have seen their tuition and required fees increase by more than the rate of inflation in all except two years, and next year they will be paying in real terms 12 percent more than nonresident students paid in 1977-78.

TABLE 4: UNDERGRADUATE TUITION AND REQUIRED FEES

University of California
Undergraduates

	Residents			Nonresidents		
Year	Actual Dollars	Constant Dollars	Index	Actual Dollars	Constant Dollars	Index
1977-78	$710	$710	1.000	$2,615	$2,615	1.000
1978-79	731	679	.956	2,636	2,450	.937
1979-80	731	620	.873	3,131	2,657	1.016
1980-81	775	601	.846	3,175	2,463	.942
1981-82	997[a]	719	1.013	3,877[a]	2,797	1.070
1982-83	1,194[c]	805	1.134	4,344[c]	2,930	1.120

a. Includes $25 one-time Spring Quarter surcharge to help cover 2 percent

b. Includes $46 one-time Spring Semester surcharge to help cover 2 percent

c. Figures reflect fee increases presented in Governor's Budget along with

IN CALIFORNIA PUBLIC INSTITUTIONS, 1977-78 TO 1982-83

State University Undergraduates					
Residents			Nonresidents		
Actual Dollars	Constant Dollars	Index	Actual Dollars	Constant Dollars	Index
$194	$194	1.000	$1,769	$1,769	1.000
206	191	.955	1,916	1,780	1.008
204	173	.892	2,004	1,700	.961
222	172	.888	2,382	1,848	1.045
320[b]	231	1.190	3,155[b]	2,276	1.287
326[c]	220	1.133	3,476[c]	2,344	1.325

current year budget reduction.

current year budget reduction.

increases authorized by Regent or Trustee actions for 1982-83.

California State University: State University resident student charges have followed the pattern evident for the University except that State University student fees began and ended at substantially lower amounts. In the current year, resident students at the State University are paying 19.0 percent more in constant dollars than did State University students four years ago. Nonresident tuition and required fees failed in only one year to exceed the inflation rate, and nonresident State University students are paying 28.7 percent more in constant dollars than similar students did in 1977-78. Next year, nonresident tuition and required fees will be 32.5 percent higher than in 1977-78.

CONCLUDING OBSERVATIONS

The kinds of student fees that California public postsecondary institutions charge and their uses of these fees make California somewhat exceptional among the states. The tradition that students should not pay any of the direct cost of instruction is the first and most striking example, although in many ways it is a natural legacy of the State's long history of tuition free public higher education and the recommendations of the 1960 Master Plan. It might be argued that since the major individual benefits students secure from a higher education derive from the instruction they receive, students should bear some of the responsibility for paying a portion of the cost. Moreover, though this portion might not change, the amount paid might increase periodically to reflect increases in instructional costs.

A second distinctive, though not unique, feature of California's current student fees and their use involves the use of a portion of these fees to provide financial aid to other students. Students now provide the money for the administration of financial aid programs on University and State University campuses, but those costs are funded by the State in the Community Colleges. Moreover, in 1981-82, University of California students through their Educational Fee are providing $42.8 million in financial aid grants and waivers for their fellow students, although no student fee revenues are being used for this purpose in either the State University or the Community Colleges. This year, the State is providing through the Cal Grant programs $16.3 million in financial aid to University undergraduates, $10.2 million to State University undergraduates, $8.8 million to Community College students, and $55.8 million to undergraduates at independent institutions.

Because the public and individual benefits of higher education cannot be measured against the public and individual costs with any

precision, one useful approach to trying to resolve this dilemma is to examine other methods of setting student charges that have been used or that might be used. At the same time, it is essential to remember that student charges should not be determined in a vacuum or in an inconsistent, ad hoc fashion. The goals which the State hopes to achieve through its system of higher education may need to be reassessed along with its existing student fee and student aid practices and policies, but those goals should be the starting point for any evaluation of student charges and student aid needs.

TWO

WHAT HAPPENED AT THE CITY UNIVERSITY OF NEW YORK IN 1976?

Whenever the possibility of charging tuition or required fees in community colleges is raised, someone invariably asks what happened in other states that have abandoned the policy of tuition-free education. While the question is a fair one, few examples can be drawn on to answer it; the needed information is seldom available; and even when it exists, serious analytical and methodological problems must be overcome in attempting to arrive at an answer.

The experience of Illinois and New York City during the 1970s illustrates the problems inherent in such attempts, since they are the two places in recent years where financial pressures and other policy considerations led to the abandonment of no- or low-fee policies in community colleges. Unfortunately, the only available study of the Illinois community college experience was so poorly done that it is useless. The Illinois Community College Board (1980) attempted to assess the relation between fee increases and enrollments between 1971 and 1979, but it failed to factor out several other important influences on enrollment, such as the performance of the state's economy, the increasing number of high school graduates, changing university admissions standards, dramatic increases in the availability of student financial aid, and the general establishment of new and expanded community colleges throughout the state. Looking only at fee levels and aggregate enrollments (not participation rates), the Board found a slight negative correlation between the two. Yet, since both fees and enrollments were increasing in these years for reasons that were largely independent of each other, the correlation was not statistically significant. Because of the lack of useful information, neither were the lessons that could be learned from the Illinois experience.

This leaves only the case of the City University of New York (CUNY). Its experience between 1975 and 1976 in instituting tuition will repeatedly be invoked in coming months to "prove" one thing or another about the impact of changes in student charges in California public colleges and universities. Already the Legislature has been told that when CUNY instituted tuition, "nearly a fourth of the students left." But can the enrollment shifts and declines that CUNY experienced be attributed to tuition alone? And what really happened there in 1975-76? While it is difficult to sort out what occurred and nearly impossible to speak with great assurance about

why, CUNY's institutional research staff have provided sufficient reliable data to warrant an attempt. Furthermore, the CUNY case is worth examining because it is so often cited and so frequently misunderstood or misrepresented.

BACKGROUND ON 1975-76

In the fall of 1975, the City University of New York system consisted of 18 colleges with a total enrollment of 251,112 students. Nine of the colleges were four-year senior institutions that enrolled 138,408 undergraduates and 27,374 graduate students. The other nine were two-year community colleges with 85,330 students.

The 1975-76 academic year marked a peak in CUNY enrollments under the influence of a half-decade old experiment of "open admission" that had transformed the once highly selective senior colleges into more open-door institutions. Even under open admissions, some selection still occurred, and in the early 1970s, FTE enrollment ceilings were imposed on the four-year colleges because of budget limitations, with surplus applicants to the senior colleges redirected to the system's two-year institutions. But until 1976, both CUNY's four-year and two-year colleges operated as tuition-free institutions for full-time undergraduates, although part-time undergraduates paid tuition and all graduate students paid tuition or required fees.

By early 1976, New York City's financial difficulties could no longer be ignored, and the City was forced to make major budget cuts in a wide variety of programs and services. The crisis brought on by the City's dwindling resources and staggering bonded indebtedness led to decisions which profoundly changed CUNY's policies on both fees and admissions.

First, CUNY's no-tuition policy was ended abruptly and fees jumped from $0 in 1975 to $700 in 1976. Governor Rockefeller had advocated such a change since 1972, but it was only New York City's financial plight and the increasing public controversy over CUNY's extensive remedial programs accompanying open admissions that enabled the governor to prevail in 1976.

Second, admissions requirements were reintroduced and retention standards tightened in both senior and community colleges. Partly for budgetary reasons and partly because of growing dismay over the sagging academic reputation of a formerly distinguished senior college system that once considered itself "the proletarian Harvard," the senior colleges now required that new freshmen rank in

the upper 35 percent rather than the upper half of their high school class, if they did not score at least 80 on their "CAA"--their college admission average grades earned in high school academic courses. Admission to the community colleges was restricted to those who ranked in the upper 75 percent of their high school class or those with CAAs of 70 or above. In both the senior and the community colleges, provisions were adopted to permit a limited number of students to be specially admitted.

Third, a major increase in state student financial aid funds was authorized through the Tuition Assistance Program (TAP) to try to minimize enrollment losses among full-time undergraduates who met the new admissions requirements or who were accepted into CUNY's SEEK or DISCOVERY programs as special admits.

At the same time, however, G.I. benefits expired for many Vietnam-era veterans between the 1975-76 and 1976-77 academic years. The combination of these four major changes compounds the difficulty of sorting out and appraising the impact of each of them separately. The analysis which follows seeks to do so, however. It is based on materials published by CUNY in November and December 1977, and articles by Theodore Gross (1978) and Robert Marshak, the former president of City College of New York (1981, 1982). It compares the freshman application patterns in fall 1975 with those in fall 1976, examines the eligibility and enrollment patterns of first-time freshmen in the two years, and looks at the impact of these changes on overall enrollment in both the senior and community colleges between 1975 and 1977.

APPLICATION RATES

The 16 percent decline in first-time freshman applications from 69,927 in fall 1975 to 53,689 in fall 1976 reflected mounting confusion and uncertainty about how the budget crises would affect CUNY. By spring 1976, a great many rumors were circulating about what might happen, but final decisions on tuition, new retention standards, and new admissions requirements were not adopted until after the application period closed.

Significantly, the number of new applicants to CUNY's four-year colleges dropped by 18.9 percent but decreased in the two-year colleges by only 10.9 percent. As Table 1 shows, the largest drop occurred among students with college admission average grades (CAAs) below the minimums established for regular admission. For example, applications at the senior institutions from students with CAAs above 80 declined by 15 percent but plummeted by 42 percent

among applicants with CAAs below 70. In the community colleges, the percentage decreases in applications from these two groups were 11.6 percent and 38.2 percent, respectively. Between 1969, when open admissions began, and 1974, the largest increase in applications and enrollments had come from potential students with CAAs below 70, so the overall 40 percent drop among this group between 1975 and 1976 marked a significant departure from that trend.

A similar difference occurred among applicants in terms of their high school rank. First-time freshman applications of students who ranked above the 65th percentile in their high school class decreased between 1975 and 1976 by only 7.9 percent, but by 20.8 percent among those who ranked below the 25th percentile. Together with the evidence about CAAs, this fact suggests that the likelihood of new admissions criteria may well have had a greater impact on CUNY's first-time freshman application rate than that of impending tuition.

TABLE 1

FRESHMAN APPLICANTS TO CUNY BY COLLEGE TYPE
AND COLLEGE ADMISSION AVERAGE GRADES (CAAs), 1975 AND 1976

Item	1975	1976	Numerical Change	Percent Change
Senior Colleges				
Total Applicants	40,914	33,175	-7,739	-18.9%
CAA: 80 and above	18,268	15,448	-2,820	-15.4
70 - 79	14,930	13,157	-1,773	-11.9
Below 70	6,285	3,643	-2,642	-42.0
Community Colleges				
Total Applicants	23,013	20,513	-2,500	-10.9
CAA: 80 and above	4,036	3,567	- 469	-11.6
70 - 79	10,902	11,562	+ 660	+ 6.0
Below 70	7,340	4,539	-2,801	-38.2
CUNY System				
Total Applicants	63,927	53,689	-10,238	-16.0
CAA: 80 and above	22,304	19,016	- 3,288	-14.7
70 - 79	25,832	24,719	- 1,113	- 4.3
Below 70	13,625	8,182	- 5,443	-40.0

Source: City University of New York, 1977a, pp. 13-15.

FRESHMAN ENROLLMENT

While the drop in applications between 1975 and 1976 reflected the initial responses of potential CUNY freshmen to the likelihood of tuition and more stringent admissions requirements, it provided only the most general hint about the actual impact these policy changes would have on both the ability and willingness of potential freshmen to enroll. Perhaps the best indicators of the effects of tightened admissions requirements, the imposition of tuition, and other changes in CUNY are the changes in the size and composition of first-time freshman enrollment between the two years.

Overall, CUNY experienced a 26.2 percent drop in freshman enrollment from fall 1975 to fall 1976--from 37,500 to 27,695. However, differences between the senior and the community colleges were so great that they make generalizations based on overall enrollment changes misleading at best. Freshman enrollment in the senior colleges plummeted from 19,764 to 10,214--a drop of 48.3 percent--but declined only 1.4 percent in the two-year community colleges--from 17,736 to 17,481. As a result, although a slight majority (53.0 percent, or 19,764 of 37,500) of CUNY freshmen enrolled in its senior colleges in 1975, by 1976, a clear majority (63.1 percent, or 17,481 of 27,695) attended one of its community colleges.

Senior College Enrollments

The first hint that the actual freshman enrollment losses in the senior colleges would greatly exceed the decline in freshman applications was contained in the applicant data. As Table 2 shows, a large percentage of the applicants to CUNY's senior colleges in 1976 failed to meet the more stringent admissions requirements. Despite the much greater drop in applications from low ability and low achieving students than among high ability students, less than half of the 1976 applicants to CUNY's senior colleges possessed CAAs of 80 or more, and only slightly more than half of the applicants ranked in the top 35 percent of their high school class. While other factors affected enrollment in CUNY's senior colleges, one of the major influences was the change in admissions requirements.

The greatest differentials in the freshman enrollment losses at CUNY's senior colleges occurred among students at different levels of high school preparation and achievement. Freshman enrollment in the four-year colleges dropped by 30.6 percent among those with CAAs of 80 or more (one of the cutoffs for regular admission to a

senior college), fell by more than 60 percent among those with CAAs between 70 and 79 (levels that permitted regular admission to the community colleges but no longer to the senior institutions), and plunged by 69.4 percent among students with CAAs below 70 (a level that now required special admission to attend any CUNY campus unless the student's class rank was high enough). Enrollment of senior college freshmen who ranked in the top 35 percent of their high school class (the other minimum avenue for admission to a senior college) dropped by 27.2 percent, but enrollment of freshmen who had been in the bottom 25 percent of their high school class (a level that required special admission to the community colleges) plunged by 66 percent.

For example, at City College, where because of its once venerable reputation for excellence the controversy over open admissions was most heated, the effects of the admissions changes were clear. In 1969, the last year prior to open admissions, 81 percent of its freshman class had CAAs of 80 or above. By 1971, the second year under the new policy, only 40 percent of its freshmen had CAAs that high, and almost all of the growth in the size of the 1971 freshman class came as a result of the entry of students who had not met City College's earlier admission requirements. In 1975, the last

TABLE 2

HIGH SCHOOL ACADEMIC ACHIEVEMENT LEVELS
AMONG FRESHMAN APPLICANTS TO CUNY SENIOR COLLEGES, 1975 AND 1976

Item	1975	1976	Numerical Change	Percent Change
Total Applicants	40,914	33,175	-7,739	-18.9%
CAA: 80 and above	18,268 (46%)	15,448 (48%)	-2,820	-15.4
75 - 79	7,959 (20%)	6,501 (20%)	-1,458	-18.3
70 - 74	6,671 (18%)	6,656 (21%)	- 315	- 4.5
Below 70	6,285 (16%)	3,643 (11%)	-2,642	-42.0
High School Class Rank Percentile:				
65 and above	14,258 (51%)	12,909 (53%)	-1,349	- 9.5
25 - 64	10,393 (37%)	8,876 (37%)	-1,517	-14.6
Below 25	3,181 (11%)	2,426 (10%)	- 755	-23.7

Note: Number of cases varies because of the deletion of those with the relevant data element missing.

Source: City University of New York, 1977a, p.14.

year under open admission policies, 45 percent of the freshmen had CAs of 80 or above. In 1976, 57 percent did so, but the freshman class was barely half as large as the one preceding it.

Since high school academic average and class rank are not discrete categories but overlap, the actual impact of the new admissions requirements on enrollment can best be assessed by examining the changing eligibility pools in CUNY's senior colleges freshman classes of fall 1975 and of fall 1976. As Table 3 shows, only 65.8 percent of these 1975 freshmen would have met the new regular admissions requirements. On the other hand, 85.1 percent of the 1976 freshmen met the new admissions requirements and the remainder were, in effect, special admits. Enrollment losses occurred among all three eligibility groups between 1975 and 1976, but the decline was much more substantial (-84.5% and -65.1%) among those freshmen who failed to meet the new senior college admission requirements for regular admission than it was among regularly admissible senior college freshmen (-32.3%). The slightly greater decline in the enrollment of freshmen who were eligible for regular admission to the community colleges but not to the senior colleges, than among those who required special admission to either set of colleges, suggests that the prospect of regular admission made these students more likely to shift their enrollment plans from the four-year to the two-year colleges. Overall, the number of freshmen from all

TABLE 3

ELIGIBILITY AND ADMISSION STATUS OF
FRESHMEN WHO ENROLLED IN CUNY SENIOR COLLEGES, 1975 AND 1976

Item	1975	1976	Numerical Change	Percent Change
Met 1976 Regular Admission Requirements for Senior Colleges	12,847 (65.8%)	8,692 (85.1%)	-4,155	-32.3%
Met 1976 Requirements for Community Colleges but not Senior Colleges	4,605 (23.3%)	715 (7.0%)	-3,890	-84.5
Did not Meet Regular Admission Requirements	2,312 (11.7%)	807 (7.9%)	-1,505	-65.1

Source: City University of New York, 1977a, pp. 18-20.

ability and achievement groups attending the senior colleges decreased in fall 1976, but the class as a whole was considerably more select academically than the one preceding it.

These facts about the impact of the new admissions requirements on senior college application and enrollment levels highlight a topic that has often been ignored in discussions of what happened at CUNY: The imposition of higher admissions requirements concurrently with the imposition of tuition. There is no question, however, that charging $700 a year tuition at historically tuition-free institutions had a major impact on CUNY senior college enrollments, as Table 4 on this page shows. The most telling information in Table 4 is the marked decrease in the percentage of eligible freshman applicants who enrolled in CUNY's senior institutions. Applicants with CAAs above 80 who enrolled dropped from 50.3 percent of all these applicants in 1975 to 41.3 percent in 1976. Enrollees among applicants who ranked in the top 35 percent of their high school class dropped from 55.5 to 44.7 percent. The even more substantial drop in the enrollee-to-applicant rates for those with lower CAAs and class ranks can be attributed to the combined effects of tuition and the new admissions requirements.

Thus for all freshman applicants to CUNY's senior colleges, the abrupt imposition of tuition clearly had a major effect on their

TABLE 4

PERCENTAGE OF FRESHMAN APPLICANTS WHO ENROLLED IN CUNY SENIOR COLLEGES, 1975 AND 1976

Item	1975	1976	Percent Change
Total Applicants Enrolled	48.3%	30.8%	-36%
CAA: 80 and above	50.3	41.3	-18
70 - 79	46.2	19.6	-58
Below 70	48.3	25.5	-47
High School Class Rank Percentile:			
65 and above	55.5	44.7	-19
25 - 64	47.3	17.5	-63
Below 25	38.5	17.1	-56

Source: City University of New York, 1977a, pp. 14-18.

decision to enroll: an adverse effect that was not offset by the State's and the system's efforts to increase financial aid funds for full-time undergraduates. Probably more than 18,000 applicants to CUNY's senior colleges in fall 1976 met the new, more selective admissions requirements. If more than half of them had decided to attend, as they did in fall 1975, the freshman class would have been nearly one-third larger than it turned out to be. The fact that they did not points to the substantial negative effect of tuition itself and the failure of the new aid programs to significantly reduce attrition among even high ability freshman applicants.*

One encouraging and perhaps surprising finding was the lack of change in ethnic and income background among freshmen who enrolled in CUNY's senior colleges in 1976. These characteristics of the fall 1976 freshman class were apparently not significantly different from those of the fall 1975 freshman class despite dramatic increases in cost of attendance and selectivity in the senior colleges. This admittedly tentative conclusion is based on inferences drawn from the ethnic-income characteristics of the residential areas from which the different freshmen came (Table 5) and from the racial-ethnic characteristics of the high schools from which they graduated: no student specific data on income, race, and ethnicity are available for CUNY students.

The greatest decrease among 1976 senior college freshmen occurred among those from minority middle-income neighborhoods, while the smallest occurred among those from white low-income areas. Despite this, as Table 5 shows, the overall range in the magnitude of decreases by type of neighborhood was fairly narrow: a drop of 47.1 percent in white high-income, 49.2 percent in white middle-income, 41.1 percent in white low-income, 55.5 percent in minority middle-income, and 46.3 percent in minority low-income neighborhoods. Perhaps the smaller enrollment losses (within the context of losses that are universally quite high) among freshmen from low-income neighborhoods can be attributed to the greater availability of financial aid for such students. The high rate for minority middle-income neighborhood students may be the result of a greater tendency on their part to shift to the community colleges as a result of the senior colleges' more stringent admissions requirements. In any

*At no time before or after the changes of 1976 did a majority of applicants for the senior colleges' freshman classes actually enroll. In part, this stemmed from enrollment caps that existed even in the open admissions-free tuition era. In part, it also stemmed from the practice, particularly among high ability students, of applying to more than one college and the subsequent decision of some of these students to attend colleges or universities outside the CUNY system.

event, these data suggest that any changes in the income and ethnic composition of the freshman classes were minor.

Community College Enrollments

The experience of CUNY's community colleges between 1975 and 1976 stood in stark contrast to that of its senior institutions. As noted earlier, freshman enrollment in the two-year colleges remained almost unchanged. But Table 6 shows this overall stability was more apparent than real, because it was in large part the result of enrollment shifts from four-year colleges that nearly offset considerable losses in the community colleges' traditional pool of freshmen.

The number of community college freshmen with CAAs above 80 declined by 13.8 percent, compared to a 30.8 percent drop among similar senior college freshmen. The size of the declines suggests that some potential senior college students of high ability may have shifted to the two-year colleges when tuition was imposed. Most high ability applicants who failed to enroll in CUNY's two- and four-year colleges probably entered institutions outside the system--either public four-year state schools or independent institutions.

Among community college freshmen with CAAs between 75 and 79 and between 70 and 74, enrollment actually increased--by 9.4 and 29.9 percent, respectively. Since most of the freshmen with such CAAs were no longer eligible to attend CUNY senior institutions if their

TABLE 5

ETHNIC AND INCOME COMPOSITION OF THE NEIGHBORHOODS OF CUNY SENIOR COLLEGE FRESHMEN, 1975 AND 1976

Neighborhood Type	1975 Number	1975 Percent	1976 Number	1976 Percent	Percent Change
White					
High Income	3,774	19.5%	1,996	19.8	-47.1%
Middle Income	9,543	49.2	4,852	48.2	-49.2
Low Income	1,333	6.9	785	7.8	-41.1
Minority					
Middle Income	1,077	5.6	479	4.8	-55.5
Low Income	3,647	18.8	1,960	19.4	-46.3

Source: City University of New York, 1977a, p. 18.

class rank was not high enough, some of them apparently shifted to the community colleges where they still met the requirements for regular admission. As noted earlier, this shift to the community colleges more than made up for the losses of potential community college freshmen from these same ability groups.

The number of community college freshmen with CAAs below 70 dropped by 33.7 percent, while the number who ranked in the bottom fourth of their high school class decreased by 17 percent. These declines were not nearly as dramatic as the elimination of such low-ability students from CUNY's senior colleges except on a special admissions basis, but they make clear that CUNY's two-year colleges were becoming smaller and more selective along with its senior colleges.

Data on enrollee-to-applicant rates for CUNY's community colleges reveal much higher enrollment rates than in its four-year colleges. As Table 7 shows, the enrollment rate of community college freshman applicants with CAAs above 80 or a class rank in the top 35 percent declined slightly between 1975 and 1976, while that of applicants with CAAs between 70 and 79 was higher than for any other achievement group--increasing by 13.9 percent. Clearly the educational options of these latter students narrowed significantly because of changes in CUNY's admissions requirements. For those committed to college, it was still less expensive to commute to a CUNY community college than attend a private institution or a SUNY college outside

TABLE 6

ELIGIBILITY AND ADMISSION STATUS OF
FRESHMEN WHO ENROLLED IN CUNY COMMUNITY COLLEGES, 1975 AND 1976

Item	1975	1976	Numerical Change	Percent Change
Met 1976 Regular Admission Requirements for Senior Colleges	5,303 (30%)	4,877 (28%)	-426	- 8.0%
Met 1976 Requirements for Community Colleges but not Senior Colleges	10,340 (58%)	10,908 (62%)	+568	+ 5.5%
Did not Meet Regular Admissions Requirements	2,094 (12%)	1,696 (10%)	-397	-19.0%

Source: City University of New York, 1977a, pp. 19-20.

the City. Their high enrollment rate and that of students below them on the achievement scale also stems in part from the tendency of average students to apply to a single institution, if they apply at all.

Data on the neighborhoods of CUNY community college freshmen, summarized in Table 8, show a much more varied pattern than did Table 5 for senior colleges, but again no major shifts are evident in their ethnic and income composition. Freshman enrollment in the two-year colleges decreased by 2.1 percent among students from white high-income neighborhoods, increased by 7 percent for those from white middle-income neighborhoods, but dropped very slightly among students from white lower-income neighborhoods. On the other hand, community college freshman enrollments from minority middle-income neighborhoods increased by 8.4 percent (from 811 to 879) in contrast to the same group's drop in enrollment from 1,077 to 479 in the senior colleges. Finally, enrollment among freshmen from minority low-income neighborhoods dropped by 5.8 percent in the community colleges, compared to a 46.3 percent drop among the same group in the senior institutions.

Examining the data in Table 9 on the ethnic characteristics of the high schools from which these students came reveals similar variation but no clear pattern. Freshman enrollment from "predominantly

TABLE 7

PERCENTAGE OF FRESHMAN APPLICANTS WHO ENROLLED IN CUNY COMMUNITY COLLEGES, 1975 AND 1976

Item	1975	1976	Percent Change
Total Applicants Enrolled	77.1%	85.2%	+10.5%
CAA: 80 and above	69.9	68.2	- 2.4
70 - 79	83.2	94.8	+13.9
Below 70	69.8	74.8	+ 7.2
High School Class Rank Percentile:			
65 and above	72.4	71.5	- 1.2
25 - 64	90.6	--	--
Below 25	84.1	84.1	0

Source: City University of New York, 1977a, pp. 15-19.

TABLE 8

ETHNIC AND INCOME COMPOSITION OF THE NEIGHBORHOODS
OF CUNY COMMUNITY COLLEGE FRESHMEN, 1975 AND 1976

Neighborhood Type	1975 Number	1975 Percent	1976 Number	1976 Percent	Percent Change
White					
High Income	3,391	19.4%	3,319	19.2%	-2.1%
Middle Income	7,925	45.4	7,980	46.3	+0.7
Low Income	1,360	7.8	1,342	7.8	-1.3
Minority					
Middle Income	811	4.7	879	5.1	+8.4
Low Income	3,950	22.7	3,720	21.6	-5.8

Source: City University of New York, 1977a, p. 19.

TABLE 9

ETHNIC COMPOSITION OF THE HIGH SCHOOLS
OF CUNY COMMUNITY COLLEGE FRESHMEN, 1975 AND 1976

High School Type	1975 Number	1975 Percent	1976 Number	1976 Percent	Percent Change
Predominantly (70%+) White and Other	4,901	46.5%	4,622	42.0%	- 5.7%
Mostly (55%-69%) White and Other	1,385	13.1	1,990	18.1	+43.7
Mostly Minority	644	6.1	753	6.8	+16.9
Predominantly (55%-69%) Minority	1,616	15.3	1,327	12.2	-17.9
Mostly (55%-69%) Hispanic	638	6.1	734	6.7	+15.1
Mostly (55%-69%) Black	970	9.2	981	8.9	+ 1.1
Predominantly (70%+) Black	391	3.7	586	5.3	+49.9

Note: High school ethnicity is based on fall 1975 twelfth grade enrollment. "Mostly Minority" is less than 55 percent either Black or Hispanic but more than 55 percent and less than 70 percent Black and Hispanic combined.

Source: City University of New York, 1977a, p. 19.

white and other" high schools decreased by 5.7 percent, while the enrollment of students from "mostly white and other" high schools increased by 43.7 percent. To take another example, enrollment from "mostly minority" high schools increased by 16.9 percent, that from "predominantly minority" high schools decreased by 17.9 percent, and that from "mostly Hispanic" high schools increased by 15.1 percent.

The ethnic mosaic of many of New York City's neighborhoods and high schools makes it dangerous to try to infer the ethnicity of freshmen from the characteristics of either their neighborhoods or high schools. Furthermore, the enrollment shifts which occurred from four-year to two-year colleges probably involved the replacement of medium- to low-ability white and ethnic minority students who traditionally attended CUNY's community colleges with other medium-to low-ability white and ethnic minority students who would have attended a CUNY senior college before admissions requirements were changed. These shifts, along with the dangers inherent in the ecological fallacy, make it all but impossible to speak with great assurance about the full impact of CUNY's new tuition and admission policies on the income and ethnic composition of its community college freshmen.

TOTAL ENROLLMENT

The cumulative impact of new admissions requirements, new retention standards, the imposition of tuition, changes in G.I. benefits, and the expansion of financial aid funds for full-time students was evident in overall enrollment changes within the CUNY system between 1975 and 1976. As Table 10 shows, total undergraduate enrollment in the senior colleges dropped by 22.7 percent from 138,408 in fall 1975 to 106,991 in fall 1976. Graduate enrollment fell by 30.6 percent from 27,374 to 18,985. Community college enrollment decreased by 12.4 percent from 85,330 to 74,761 and total enrollments fell from 251,112 to 200,737--an overall decline of 20.1 percent, or one out of every five students.

Variations within colleges in enrollment decline were often more revealing than overall losses. For example, the effect of the emphasis in the State's financial aid program on assisting full-time students was evident in the differential changes between full-time and part-time enrollment levels, although CUNY introduced an aid program of its own that supplied small grants of about $300 to 9,500 part-time students in the senior colleges and 11,200 in the community colleges during the 1976-77 academic year. In the senior colleges, full-time undergraduate enrollment declined by 17.7

percent between 1975 and 1976; while part-time undergraduate enrollment dropped by 31.2 percent in the same period. The pattern among graduate students was similar, but the differential between full-time and part-time students was even greater--5.4 percent compared to 36.2 percent. In the community colleges, full-time enrollment actually increased slightly, while part-time enrollment dropped by 29 percent.

Senior College Enrollment

In the senior colleges, freshman and overall undergraduate enrollments were also affected differently. As noted earlier, freshman enrollment in the senior colleges dropped by 48.3 percent, while overall undergraduate enrollment declined at less than half that rate--22.7 percent. These differences provide support for the con-

TABLE 10

CUNY HEADCOUNT ENROLLMENT BY COLLEGE TYPE, STUDENT LEVEL, AND CREDIT LOAD, 1975-1978

	1975	1976	Percent Change	1977	Percent Change	1978	Percent Change
Senior Colleges							
Undergraduate							
Full-time	87,484	71,981	-12.7%	69,950	- 2.1%	68,400	- 2.2%
Part-time	50,924	35,010	-31.2	29,450	-15.9	25,550	-13.2
Total	138,408	106,991	-22.7	99,400	- 7.1	93,950	- 5.5
Graduate							
Full-time	4,909	4,645	- 5.4	4,250	- 8.5	3,800	-10.6
Part-time	22,465	14,340	-36.2	11,250	-22.9	9,900	-10.4
Total	27,374	18,985	-30.6	15,300	-19.4	13,700	-10.4
Total Senior Colleges	165,782	125,976	-24.0	114,700	- 9.0	107,650	- 6.1
Community Colleges							
Full-time	44,493	45,747	+ 0.3	50,100	+ 9.5	52,000	+ 3.8
Part-time	40,837	29,014	-29.0	24,550	-15.4	22,650	- 7.7
Total Community Colleges	85,330	74,761	-12.4	74,650	- 0.1	74,650	0.0
Total CUNY	251,112	200,737	-20.1	189,350	- 5.7	182,300	- 3.7

Source: City University of New York, 1977b, Exhibit IId.

clusion that upper-division students on the whole are less price responsive than lower-division and particularly freshman students. Even allowing for the greater impact of new admissions standards on freshmen, the greater holding power that colleges appear to have over those who have already spent several years there, the shorter number of years that upper-division students have to pay higher fees, and the better position of upper-division students to assess their chances of graduating all combined to produce much lower attrition among upper-division students than among freshmen. As a result, the percentage of first-time freshmen to total undergraduates in the senior colleges declined sharply between 1975 and 1976. Indeed, whereas 14.3 percent of the senior college undergraduates were first-time freshmen in 1975, only 9.5 percent were in 1976.

The dramatic drop in first-time freshmen in 1976 virtually insured continued enrollment losses for CUNY's four-year colleges in future years since the new policies remained in effect. First-time freshman enrollment in fall 1976 was 10,214 in the senior colleges, but the preceding spring these institutions had awarded approximately 17,500 bachelor's degrees. In effect, new freshmen replaced only a little over 58 percent of the students who graduated. (In fact, nearly one fourth of the senior college's undergraduate enrollment loss between 1975 and 1976 can be accounted for by the failure of the new freshman class to reach replacement levels.) To the extent that the new policies kept subsequent entering freshman classes smaller than the prior spring's graduating classes, enrollment losses could be anticipated for another three or four years beyond 1976 though probably at a reduced rate. Undergraduate enrollment figures in the senior colleges for the two years following 1976 support this conclusion. Fall 1977 undergraduate enrollment in the four-year colleges was 7.1 percent below the 1976 level, and the projected enrollment for fall 1978 dropped an additional 5.5 percent.

The graduate programs at CUNY's senior colleges were also affected by the sweeping changes introduced in the fall of 1976. While full-time graduate enrollment declined only slightly from 4,909 students in 1975 to 4,645 students in 1976, part-time graduate enrollments plunged from 22,465 to 14,340 in the same span. Moreover, these trends continued for at least the next two years, though they were perhaps influenced more by national employment prospects for new Ph.D.s and teachers than by the system's new policies. Further, the acceleration rather than deceleration of full-time graduate enrollment losses in fall 1977 and fall 1978, along with continued heavy losses in these years in part-time graduate enrollment, suggests that some of the graduate enrollment losses in this period may have stemmed from budgetarily imposed enrollment ceilings. If this was the case, it would be a mistake to try to infer anything about the price responsiveness of CUNY graduate students on the basis of these enrollment changes.

Community College Enrollment

As was so often the case in these years, the patterns in CUNY's two-year colleges were different from those in the senior institutions. Rather than exceeding the rate of decline in total enrollment as it did in the four-year colleges, freshman enrollment declined less than overall community college enrollment between 1975 and 1976-- -1.4 percent compared to -12.4 percent. This suggests that the bulk of the new freshmen were full-time students in 1976 since the enrollment of both groups experienced almost no change. Moreover, the number of new freshmen in the community colleges in fall 1976 (17,481) exceeded the number of CUNY two-year college students receiving associate degrees the preceding spring (approximately 9,950). Unlike the experience of the senior colleges, the new freshman class more than replaced those who graduated. Thus, the percentage of freshmen to total community college enrollment increased from 20.8 percent in fall 1975 to 23.4 percent in fall 1976. Moreover, the surplus of freshmen to graduates suggests that at least full-time community college enrollments would increase slightly for several years. Indeed, the fall 1977 community college full-time enrollment exceeded the fall 1976 level by 9.5 percent, and the projected fall 1978 full-time enrollment was up an additional 3.8 percent.

The sizable surplus of fall 1976 freshmen to spring 1976 associate degree recipients provides yet another clue that there was considerably more enrollment turnover in the community colleges in these two years than the net changes in enrollment suggest. For example, assuming for the sake of argument that nearly all the spring 1976 graduates were full-time students and that nearly all the fall 1976 first-time freshmen were also enrolled full time, the CUNY community college full-time enrollment should have increased by more than 7,500 students instead of the actual 1,254. These figures suggest that perhaps as much as 14 percent of the community colleges' full-time students in fall 1975 dropped out by fall 1976 as a result of tuition charges and the new admissions requirements.

CONCLUSIONS

The nature of available data make it difficult to extrapolate with much assurance from CUNY's experience to other states and systems. Yet the data on CUNY's applicants, first-time freshmen, undergraduates, and graduate students in its two- and four-year colleges make it possible to answer many questions about what occurred there in 1975-76 and point to key policy changes connected with these events:

1. Between fall 1975 and fall 1976, freshman applications dropped by 18.9 percent in CUNY's senior colleges and by 10.9 percent in its community colleges.

2. The greatest drop in applications for both sets of schools occurred among prospective students who seemed least likely to meet the new and more stringent admissions requirements. Thus applications from students with college admissions averages of less than 70 declined by 42 percent at the senior colleges and by 38.2 percent at the community colleges.

3. It appears that rumors about the possible new admissions standards had a somewhat greater impact on the application decisions of first-time freshmen than did rumors of impending tuition, although both factors were clearly important in reducing the number of applications.

4. The decline in first-time freshman enrollment was confined almost entirely to the senior colleges and was substantial--a drop of 48.3 percent.

5. Freshman enrollment losses in the senior colleges occurred among all ability and ethnic groups and among graduates from the City's top-rated high schools as well as those from low-rated schools.

6. Well-prepared, high-ability freshmen had the greatest number of educational options to choose from including enrollment at other institutions outside the CUNY system. Nevertheless, enrollment of these freshmen who met the new 1976 regular admissions requirements at the senior colleges dropped 32.3 percent below the level for this same group in 1975.

7. Medium-ability students who met the regular admissions requirements for CUNY's community colleges in 1976 but required special admission to attend the senior institutions appear to have shifted their enrollment to the two-year colleges or dropped out. In any event, the number of such freshmen at senior colleges dropped by 84.5 percent.

8. Low-ability or poorly prepared freshmen who required special admission to attend any CUNY college had few educational options except to attend a community college, drop out, or seek one of the limited number of spots for special admissions students at the senior colleges. Consequently, the freshman enrollment of such students at senior institutions dropped by 65.1 percent.

9. The combined impact of the new admissions requirements and the imposition of tuition left CUNY's senior college freshman class considerably smaller but much more selective academically than the one preceding it. Despite this, no major changes in the income, ethnic, or racial composition of the freshman class were evident.

10. The experience of CUNY's two-year community colleges stood in stark contrast to that of its four-year institutions. Freshman enrollment in the two-year colleges remained almost unchanged between 1975 and 1976, although the seeming stability of this enrollment was more apparent than real because of the enrollment shifts that the new admissions requirements set in motion.

11. Major changes occurred between 1975 and 1976 in the composition of the community college freshman class with respect to academic preparation and achievement. The number of these freshmen who met the four-year college admissions requirements declined by 8.0 percent. The number who met the community college but not the senior college regular admissions requirements increased by 5.5 percent, while the number who required special admission to the two-year colleges dropped by 19.0 percent.

12. In both senior and community colleges, the overall enrollment losses among full-time students were markedly lower than among part-time students. This can probably be attributed to the increased emphasis on providing financial assistance to full-time students, although the additional financial aid was never sufficient to prevent substantial attrition throughout the CUNY system.

13. Evidence on the differences in attrition between freshmen and undergraduates as a whole supports the conclusion that upper-division students are probably less price responsive than first-time freshmen, although other factors that cannot be statistically controlled make it all but impossible to calculate precisely how great this difference in elasticity may be.

14. In the senior colleges, the number of new freshmen in fall 1976 was not large enough to replace those who had graduated the prior spring. This produced a situation that made continued enrollment declines likely for several more years since the policies which triggered the initial declines remained in place.

15. In the community colleges, the number of new freshmen in fall 1976 exceeded the number of associate degree winners from the prior spring. Despite this, community college enrollment did not increase, suggesting that the new tuition and admissions policies had considerably more impact even on full-time students than the net enrollment changes seem to suggest.

16. There is no evidence in the enrollment patterns of either the senior or community colleges between fall 1975 and fall 1978 which supports the theory that major policy changes in tuition and admissions requirements produce only temporary enrollment dislocations. The imposition of substantial tuition and the adoption of more stringent admissions requirements led to permanent, not temporary, reductions in participation rates and enrollment in the CUNY system.

THREE

VARIABLES NEEDED TO ESTIMATE THE IMPACT OF STUDENT CHARGES ON STUDENTS AND INSTITUTIONS

Any satisfactory answer to the question of increasing student charges requires a careful assessment of the impact such changes may have on both students and institutions. This raises a whole host of additional questions:

What level of student charges is most reasonable? What method should be used to determine the new charges?

What impact would different fee levels have on student participation rates and on the access of various minority and low-income groups to public postsecondary education?

How would an increase in student charges affect full-time students? Part-time students? Undergraduates? Graduate students? Professional school students?

How would different fee levels affect the distribution of enrollments among the public segments or between the public and independent segments?

What provisions would need to be made to increase financial aid?

What existing sources of additional aid would be available and what new sources of aid would be needed? How might existing aid programs need to be modified?

How large an enrollment drop would be likely if new charges were imposed and additional aid were not made available? What would happen to enrollment if new aid funds were supplied? And what would the net tuition and fee revenues be under both scenarios?

Would all or part of the additional revenue be used as an offset to General Fund appropriations? What would be the likely enrollment-related budget reductions? What kinds of faculty reductions might such budget losses entail?

In sum, what would be the implications of adopting any of the alternative methods for setting fees and providing aid?

What follows is a brief, nontechnical review of evidence about the impact of price and other variables on the demand for higher education. The discussion attempts to convey the strengths and limita-

tions of the data and methods used in these quite complex studies, summarize their major findings, and then identify the critical variables affecting enrollment, financial aid needs, and State and segmental revenues.

STUDIES OF THE IMPACT OF PRICE ON ENROLLMENT

Most of the studies that examine the effects of price on student enrollment decisions follow the standard econometric practice of attempting to determine the reasons why students decide to enroll where they do by studying whether and where they actually enroll.

A report by Richard Ostheimer in 1953 for the Commission on Financing Higher Education contained what was probably the first econometric study of the demand for higher education. The study estimated the effect on college enrollment of tuition, family income, educational background, and the proximity of colleges and universities--all variables that have long been identified with the propensity of students to attend college. Most of the early work on enrollment demand was based on aggregate enrollment data collected by the federal government. These early studies usually examined either enrollment variations across states in a single year or for the country as a whole over time. It was assumed that statistical correlations would show how the average student would respond to a change in tuition or fees.

In the last few years, the focus has shifted from aggregate data to data on individual students, and the studies have become more sophisticated. These include a nationwide study of access by John Bishop (1975), and several studies by Stephen Hoenack which focused on enrollment demand at certain public institutions (1967; 1975). The primary emphasis was still on the effect of price on a student's decision whether to attend college or not. Although relying on individual student data, the focus of these studies was still on access, not on which institutions students chose to attend and why.

Two well-known studies completed in 1974 investigated the question of student choice using the same kinds of data. The first of these was Roy Radner and Leonard Miller's study for the Carnegie Commission, Demand and Supply in U.S. Higher Education. The second was the study by Meir G. Kohn, Charles F. Manski, and David S. Mundel for the Rand Corporation with the forbidding title, "An Empirical Investigation of the Factors Which Influence College Going Behavior."

The basic methodology in these studies of student choice can be summarized as follows (McPherson, 1978, pp. 176-177):

> The studies first try to impute to each student in a sample of students a set of variable college-going alternatives, taking into account location, academic ability, and the like. They then gather information about the characteristics of the colleges available to the various students (their cost, selectivity, and so forth) and background characteristics of the students and their families. A statistical technique called conditional logit analysis is then used to infer how the characteristics of the colleges and the students interacted to produce the set of college choices the students actually made. In effect, the computer tries out alternative weighting schemes for the factors impinging on the decision process (cost, quality, family income), and selects the scheme that best accounts for the decisions the students made.

Although these particular theoretical models and others like Bishop and Van Dyk's (1977), which uses similar techniques to investigate the enrollment behavior of adults attending community colleges, provide the most complete picture yet of the student-choice process and have great promise, they also have certain shortcomings. The data demands are enormous and do not come near being met. The cost of a conditional logit computer run is much greater than the more widely used miltiple-regression technique. Finally, in order to make the computations manageable, numerous assumptions about the nature of the student-choice process must be introduced a priori. Of course, if the underlying assumptions are correct, and most seem quite plausible, such models can provide a remarkably comprehensive picture of student demand.

Before summarizing the findings of these studies, one final cautionary note is necessary. Student charges are only one of the factors that determine who goes to college, and they are by no means the most important. Studies that incorporate sociological, educational, and economic variables place the importance of cost varations in a somewhat different perspective. The intellectual ability of individuals, their socioeconomic characteristics (including parent income, neighborhood, ethnicity, the profile of one's peers and close friends, etc.), their schooling, and that of their parents, have stronger effects on the probability of attending college than costs or financial aid, but, of course, these variables are less easily altered by educators or legislators. Furthermore, the ability of educators to achieve educational or social goals through higher education is limited by the variables that they are able to influence.

FINDINGS OF EMPIRICAL STUDIES

The one universal finding from these studies is that price does affect access. Every study finds a significant, though small, negative relationship between the net price faced by students and their probability of attending college. On the question of how much enrollment would increase if charges were lowered, or how much it would decline if they were raised, there is much less agreement. Moreover, the elasticity of demand is assumed to be symmetrical, but probably is not--slightly lower elasticities are likely when prices are raised than when they are lowered.

Translating the results of these demand studies into a common, comparable format requires standardizing the coefficients for average family income, the average cost of education, age-specific participation rates, and changes in the Consumer Price Index or some other measure of inflation. This was done in 1974 by Gregory Jackson and George Weathersby, who offered a "ballpark" estimate of a 2.5 percent change in enrollment for every $100 change in higher education prices. In the same year, Michael McPherson reformulated and revised Jackson and Weathersby's work. He concluded that a $100 change in tuition occurring at all colleges simultaneously would lead to about a 1.0 percentage-point change in the enrollment rate of 18- to 24-year olds. Since approximately one-third of this age groups was enrolled in postsecondary educational institutions nationally at that time, this was equivalent to a 3 percent change in enrollment and a tuition elasticity of -0.3. The conclusions of the two studies are actually quite similar. The 1 percentage point or 3 percent figure is widely accepted as the best estimate of the effect of a $100 decrease on public institution enrollments, although the estimate needs to be adjusted for inflation-induced changes since 1974 and transposed into the appropriate tuition elasticity before it is very useful.

Because of both its breadth and its simplicity, however, this generalization is dangerous. It obscures important distinctions critical to any careful analysis. Clearly, the impact of price changes is not the same for all students at all institutions. First, as might be expected, one of the consistent findings in most studies is that individuals from low-income families are more affected by price changes than are individuals from high-income families although providing additional financial aid to lower-income students can help to partially offset these differences. Second, students of higher ability are less sensitive to changes in cost than other students. Third, the impact on enrollment of a $100 increase in costs at an inexpensive school is much greater than it is at a high-tuition institution. Stated differently, the price response is different in independent institutions than in public ones, and it may vary among public institutions as well. Fourth,

price changes in public institutions, or in any group of institutions for that matter, could lead to enrollment shifts between institutions--between the public and independent sectors or between segments within the public sphere. All these variables need to be incorporated into any model that attempts to assess the impact of price changes on enrollment.

CRITICAL VARIABLES AFFECTING STUDENT ENROLLMENT AND STUDENT FINANCIAL AID NEEDS

A number of variables and components need to be considered in any assessment of the impact of student charges on enrollment and student aid both from the standpoint of individual students and particular institutions. Among them are the following:

1. Tuition Elasticity of Enrollment Demand

Evaluating the impact of different price levels on enrollments in different kinds of institutions depends on the use of a measure of student price responsiveness. Referred to as a "tuition elasticity coefficient," this measure is defined as the percent change in enrollment produced by a 1 percent change in net price. Clearly from this definition, it is evident that both the magnitude of any proposed fee increase and the existing level of fees are essential data elements in the equation. So, too, are the current enrollment patterns within each institution or segment, not just the current total enrollment.

There are actually two different kinds of tuition elasticity coefficients: (1) direct or own-price, referring to the enrollment responsiveness of students to fee increases in the institution they attend currently, and (2) indirect or cross-price, referring to the enrollment responsiveness of students in a particular institution to price changes occurring in other institutions. Most research thus far has developed measures of direct or own-price coefficients, and the use of the term "tuition elasticity coefficient" without any further modifiers normally refers to this particular coefficient. Despite the importance of the cross-price coefficent, no satisfactory measures of its precise magnitude are currently available. The direction and rough magnitude of enrollment shifts can often be guessed intuitively or deductively, but guesses do not fit well into mathematical equations.

Finally, no single set (own-price and cross-price) of elasticity coefficients describe all students' price responsiveness. Instead,

different kinds of students respond differently, and so unique sets of elasticity coefficients should be used to describe the enrollment behavior of each subset of students.

2. Effects of Family Income on the Enrollment Responsiveness of Students and Effects of Income Distribution on Enrollment Impact at Different Institutions

While not all empirical studies agree on the exact magnitude of the variations in enrollment responsiveness attributable to differences in income (family income for dependent students and personal income for independent self-supporting students), it appears that low-income undergraduates are approximately twice as price responsive as middle-income undergraduates, all other things being equal, and that high-income undergraduates are about two-thirds as responsive as middle-income undergraduates. Income levels also affect student eligibility for current financial aid programs and will no doubt affect how additional financial aid funds are targeted. Basically, student financial aid programs are designed in large part to reduce, if not entirely offset, differentials in price responsiveness based on income. The general relationship outlined above reflects the differential elasticity coefficients of low-, middle-, and high-income students before taking financial aid offsets into consideration.

Switching the focus from the price responsiveness of individual students to the enrollment impact of fee increases on institutions requires information on the income distribution of the institution's students. Differences among institutions or segments in the income distribution of their students affects not only their likely enrollment impact, but their current reliance on student financial aid funding and their need for additional financial aid funds if fees are increased. Unless an institution or segment has sufficient amounts of financial aid at its disposal to partially offset increased charges, one enrolling a large proportion of low- and middle-income students is likely to experience greater enrollment losses, all other things being equal, than would another enrolling predominantly middle- and upper-income students.

3. Distinctions Among Lower Division, Upper Division, Graduate, and Professional Students

Distinctions based on student level are important to assessments of the enrollment impact of higher charges on both students and institutions for several reasons: First, current fee levels may vary by student level, as they do between undergraduates and graduate students at the University. Second, some evidence suggests that

upper division students are likely to be less price responsive than lower division students since they are normally in a better position to assess or weigh the financial risks against the likelihood of their successfully completing a degree. Moreover, the attachments that upper division students have developed to a particular institution make them less likely to transfer to some other institution in periods when fees are increasing in nearly all institutions. Third, the increasing selectivity in the admissions process between undergraduate and graduate or professional school is likely to reduce the overall price responsiveness of advanced students, since high-ability students in general are less price responsive than low-ability students.

For different institutions or segments, the particular mix of students by student level is likely to affect their potential enrollment losses. Institutions such as the State University with a greater proportion of upper division than lower division students can normally expect a lower attrition rate than other institutions where the proportions are reversed, except that the State University's proportion of part-time students among its upper division students is greater than the proportion of part-timers at the lower division level. The increasing selectivity of admissions at the graduate and professional level at the University, plus the surplus of qualified applicants for available spaces in certain graduate and professional programs, make the net enrollment effect of fee increases at advanced graduate and professional levels much less significant for institutions than for individual students.

4. Distinction Between Resident and Nonresident Students

Enrollment effects of increased charges are likely to be different for resident than for nonresident students for at least four reasons: (1) nonresident students currently pay much higher fees than residents; (2) the income distribution of the two groups differs; (3) their eligibility for federal financial aid programs varies; and (4) the restriction of eligibility for State student aid programs to State residents makes the net price effects of fee increases quite different. Although not all these factors operate in the same direction, the differential enrollment responses of resident and nonresident students could have a significant impact on the diversity of the student body at some institutions by altering the proportions of resident and nonresident students.

5. Distinctions Between Full-Time and Part-Time Students for Fee Purposes

While the University currently recognizes no fee differential between full-time and part-time students unless the student specifi-

cally petitions the Dean for a partial waiver, the State University still recognizes differences between students taking six or fewer units and those taking more. The current part-time differential in the State University's Student Services Fee will be ended next year, but the Chancellor's Task Force on "A New Student Fee and Financial Aid Program" proposed that any new "Emergency Fee" be differentiated on the basis of students taking less than six units and those taking more.

In the event that Community Colleges charge fees in the future, they will almost certainly introduce some differential in the new fees to recognize the large number of part-time students they currently enroll. Whether they would adopt a two-tier system for fees similar to the State University's or institute a per-unit fee charge cannot be determined. The introduction of a per-unit fee system should be viewed with great skepticism because of the experience of Florida and other states where such a charge not only created a disincentive for taking more units, it encouraged students to adjust to higher fees by taking fewer units, it led to substantial FTE enrollment losses although it tended to reduce the magnitude of headcount losses, and it increased administrative costs associated with fee collection, refunds, and financial aid.

Since the net price increase faced by undergraduates in all three public segments also depends on differences in aid eligibility between full-time and part-time students, those segments with a high percentage of part-time students are likely to experience greater headcount enrollment losses than those with predominantly full-time students.

6. Eligibility for Federal Student Financial Aid

Eligibility for federal financial aid programs is closely related to income levels (family income for dependent students and personal income for independent students) and generally restricted to students enrolled for at least a half-time load. For institutions or segments, the proportion of undergraduates eligible for Pell Grants and the amount of federal financial aid funds that will be available to partially offset any fee increase depend upon the income distribution of their students and their credit-load patterns.

Prior to the passage of the Middle Income Student Assistance Act (MISAA) in 1978-79, for example, it was rare for a dependent, full-time undergraduate from a family of four to receive a Pell Grant if his or her parents' taxable income exceeded $15,000. In 1979-80, under the provisions of MISAA, a full-time undergraduate from a family of four with an annual income of up to $25,000 could be eligible for at least a minimum grant. Subsequent adjustments

raised the ceiling to approximately $27,000 in 1980-81 and then downward to $26,000 in the current year. Recent administrative changes in program guidelines would have the effect of "repealing" the MISAA and dropping the implicit income ceiling for 1982-83 back down to approximately $18,000--an $8,000 drop in actual dollars in one year for eligibility and a drop in constant dollars to a new ceiling that is at least 13 percent below the old 1978-79 level.

Even at peak funding levels, however, the situation was different for part-time undergraduates from these same income groups than for full-time undergraduates. First, those students taking fewer than six units per term are not eligible for financial aid no matter how low their family or personal income. Second, although those taking from six to eleven units are eligible in theory for a fraction of what full-time students with comparable family incomes receive (since part-time students theoretically can contribute more toward the cost of their education through part-time employment), in practice the number of part-time undergraduates receiving any Pell Grant funds has been quite limited, as has the percentage even applying for them.

If undergraduate student charges are increased, the additional financial need created would be offset only partially by an increase in Pell Grant funds. Indeed, even under optimum conditions with no further cuts by the Reagan Administration, the State could not expect that any more than one-half of the additional financial need of full-time undergraduates from low-income families would be offset by Pell Grant monies, and even then this offset would apply only to those students who are not already receiving the maximum grant. Until 1982-83, most full-time undergraduates from middle-income families with incomes below $25,000 would continue to remain eligible to receive at least a minimum grant, but most of these same students' grants would not increase at all even if student charges were increased dramatically. In 1982-83, unless the administrative regulations are changed, most of these students will be ineligible for any Pell Grants. Moreover, most part-time undergraduates, regardless of their families' incomes, could not count on much, if any, additional financial aid from the federal grant programs.

Graduate students could not count on any automatic increases in financial support from the federal government. No federal programs comparable to the Pell Grant entitlement program exist that would provide additional financial assistance to graduate and professional students in the event that fees were increased. Furthermore, the Reagan Administration has made major cuts in most federal research grant programs, such as that of the National Science Foundation. Not only do such cuts sharply decrease the amount of extramural funding available for research at the University of California and other major universities, they also reduce one of the major sources

of funds for graduate student fellowships and research assistantships. Further, the Administration has now proposed to eliminate graduate students from eligibility for the below-market-rate loans of the Guaranteed Student Loan (GSL) Program.

Clearly the continually changing eligibility requirements for the federal undergraduate grant and loan programs and the graduate loan programs have a major effect on the ability of students and their families to finance their educations. Yet, for the shrinking number of undergraduates who remain eligible for Pell Grants, that eligibility in effect partially offsets the impact of increases in student charges. Furthermore, for many undergraduates who lose eligibility for federal aid and for graduate students who may lose the right to borrow under the GSL program, there will be a significant increase in the cost of education next year even if fees were not increased.

For institutions and segments, the income and credit load distributions of their students determine how many of their current undergraduates are likely to have part of any fee increase offset by federal funds. Those with a large proportion of graduate students are likely to be quite seriously affected if the most recent administration proposals pass. Those with a high proportion of lower-income students who remain eligible for Pell Grants are likely to have a much greater proportion of any fee increase offset by federal financial aid funds. Those with a high proportion of higher-income students who are currently ineligible for Pell Grants may witness some changes as a result of new GSL regulations, but will probably experience the least adverse enrollment impact from the latest round of federal budget cutting or a subsequent increase in fees. Institutions enrolling a large percentage of undergraduates from middle-income families are likely to experience the greatest dislocations in meeting financial aid needs as a result of Pell Grant eligibility changes and new loan requirements.

7. Eligibility for State Student Financial Aid and Financial Aid Offsets for Current Cal Grant A, Cal Grant B, and Cal Grant C Recipients.

Current Cal Grant programs assist students at both public and independent institutions. The number of new awards in each program is fixed by statute. If the program were fully funded, Cal Grant A recipients could count on the full amount of any fee increase to be offset by the State. Cal Grant B winners, under the same tenuous funding assumptions, would have the entire amount of any increase covered by the State after the first year. (New Cal Grant B winners do not receive any money from the State to cover student charges during their first year, but since most of them are from disadvantaged, low-income families, they now qualify and would probably

continue to qualify for a Pell Grant that would cover approximately one-half of any fee increase during their first year.)

In the last few years, however, the Student Aid Commission budget has not had sufficient funds to cover all fee increases. For example, the University's Cal Grant A recipients received only $800 of the $997 student charges, despite the fact that their grants in the past have covered the full amount of all tuition and fees up to $3,400 or net need, whichever came first.

Eligibility for a Cal Grant A award depends on a student's financial need and academic performance in high school. Consequently, the distribution of current Cal Grant A recipients within the public segments reflects not only differences in income distributions, but primarily differences in academic selectivity or admissions requirements. As a result, the University has the largest number of Cal Grant A recipients among the public segments. Eligibility for Cal Grant B awards depends upon family income, ethnicity, other measures of disadvantagement, and academic performance. There is also a provision requiring that half of all new award winners attend a Community College initially. In 1981-82, there were 8,173 Cal Grant B recipients in the Community Colleges; 7,578 in the State University; and 5,545 in the University. The exact effect that these differing distributions of Cal Grant recipients will have on a segment's students' ability to adjust to fee increases and its own enrollment levels will depend upon the decisions made about the appropriate level of funding for the programs.

8. Adjustments for the Effects of Inflation on the Ability of Students to Cope with Fee Increases.

The concept here is that certain levels of fee increases could occur without adversely affecting enrollment behavior because student earnings and family income growth between the current and the ensuing academic year would increase the capacity of students to pay for a portion of the costs of their education. The incorporation of this concept into any assessment of the impact of increased student charges on enrollment requires that the inflation adjustment (preferably measured in terms of average growth in California family incomes or in terms of the PCE, instead of the CPI) be sensitive to the current level of student charges. Clearly this requirement is not met in the case of the Community Colleges because of their current no-tuition, no- or low-fee policy, and it is only partially met in the case of the State University where the current fee levels are quite low. Perhaps the best solution is to discount the "effect" of any proposed fee increase by some plausible constant dollar amount and to reduce the magnitude of the nominal price increase by that amount.

9. The Effect of Student Ability on Student Price Responsiveness

Many of the studies of student enrollment behavior cite students' academic ability as one of the major determinants of their likelihood of enrolling and their likelihood of remaining enrolled in the face of subsequent fee increases. From an institutional or segmental standpoint, academic selectivity is the functional equivalent measure of the overall academic ability of its students and of their likely price responsiveness, other things being equal, in the face of fee increases. The higher the ability of an individual student, the greater the likelihood that they will enroll in a highly selective institution and the greater the likelihood that modest fee increases will not adversely affect their enrollment. Given the differential admissions requirements of California's public segments under the Master Plan, the University is likely to experience lower enrollment losses than the Community Colleges. The exact magnitude of the differences that ability differences produce in elasticity coefficients have never been calculated satisfactorily, but some ability measure should probably be introduced.

10. The Effects of Enrollment Demand Versus Enrollment Management

Most all studies of the price responsiveness of student enrollment demand use "demand" models which assume that there will be sufficient places within the appropriate institutions to accommodate all the students who are willing and qualified to attend. Estimates of the enrollment impact of increases in student charges in such situations invariably conclude that the impact is negative because some students are no longer able to attend the institution or segment that raises its prices and other students are no longer willing to attend the institution or segment that raises prices. Some of those who can no longer afford to attend or are no longer willing to attend a particular institution drop out of postsecondary education altogether, while others switch their enrollment to a less expensive, or at least a different, option. In any event, the effect of fee increases in an enrollment demand situation is to alter the enrollment behavior of some students and to reduce the enrollment of certain institutions.

In an enrollment management situation, however, not enough places are available to accommodate all the students who are willing and qualified to enroll in particular institutions. While the effect on increased charges on students in such institutions and circumstances is often similar to the effect on students in enrollment demand situations, the impact on institutions is quite different indeed. This has long been a part of the normal operating experience and assumptions of certain elite independent institutions such

as those in the Ivy League; it has long characterized the situation at most medical, dental, and law schools; and it has occurred as well in a few of California's public colleges and universities. The Berkeley campus of the University has long been redirecting qualified prospective freshmen elsewhere because its number of qualified applicants exceeds its number of available places in the freshman class by 25 percent. The State University's San Luis Obispo campus has had a similar experience for a number of years because of the tremendous demand for its engineering and architecture programs and the limited number of available spaces. At various times and for certain high-demand programs like engineering, computer science, graduate business administration, medicine, dentistry, and veterinary medicine, other University and State University campuses have had more qualified applicants than spaces. When student charges increase in such instances, they can often have the same adverse impact on the enrollment decisions of individual students, but the affected institutions rarely experience any change in their overall enrollment levels.

Next year, the State University has been told that it will be funded for 5,522 FTE students less than it currently enrolls on its 19 campuses. Moreover, 6 of the 19 campuses currently have at least certain programs that are impacted--more students want to enroll than can be accommodated. Under the circumstances, a significant increase in fees would probably produce a marked turnover in the individual students who enroll next year at State University campuses, but it could conceivably have very little impact on the systems' overall FTE enrollment level which is likely to come quite close to budgeted levels. The University faces a similar, if slightly less dramatic, situation. There, the existing composition of its student population, current fee levels, existing aid programs, and excess demand for places from qualified applicants, are likely to insure that small fee increases will have no adverse effect on the enrollment patterns of individual students or on the University as a whole.

CRITICAL VARIABLES IN ESTIMATING THE IMPACT OF STUDENT CHARGE INCREASES ON STATE AND SEGMENTAL REVENUES

Five major revenue estimates are necessary in appraising the implications of increased fees for State and segmental revenues: (1) the tuition or fee revenue generated from higher charges if no new financial aid programs are created; (2) the enrollment-related budget reductions that would occur if no new aid were provided and enrollment declined; (3) the amount of new State or institutional aid needed to assist the neediest undergraduate, graduate, and

professional students; (4) the net tuition revenue generated from higher student charges if additional State financial aid were provided; and (5) the net enrollment-related budget reductions that would occur if the new aid were provided.

1. Estimating the Tuition Revenue That Would be Derived From Increased Student Charges if No New Aid Programs Were Created

Computing the tuition revenue generated in each segment by an increase in student charges involves not only multiplying the amount of the increase by the number of students remaining to pay it, but also subtracting the amount of the current charges paid by those students who would leave because of the increased charges. If the fee increase were a flat amount for a particular segment and there were no attrition the computation would be quite straightforward. If it varied for residents and nonresidents; full-time and part-time; undergraduates, graduate students, and professional school students; or on some other basis, the computation would be more complex but not fundamentally different. Whether all the revenues went to offset a part of the segment's General Fund appropriations or whether part went to the State and part to the institutions would affect only the distribution of the funds and their use, not the aggregate amount raised by higher fees.

2. Estimating the Enrollment-Related Budget Reductions That Would Occur if No New Aid Were Provided

Projected enrollment losses, if any, are taken into consideration both in calculating the tuition revenue that would be generated by increased student charges and in computing enrollment-related budget reductions. The State's funding formulas are enrollment sensitive and based on Full-Time-Equivalent (FTE) enrollment, not headcount enrollment. While actual headcount students apply for admission, enroll in college, pay the required student charges, take courses, and either graduate or decide to leave college early, their enrollment affects the actual operation of the institutions, but FTE enrollments affect their funding. As a result, projected headcount enrollment losses must be converted to FTE losses in calculating the enrollment-related budget reductions they would produce.

3. Estimating the Amount of New State or Institutional Aid Needed to Assist the Neediest Undergraduates and Graduate Students

Any number of methods might be used to estimate the amount of additional financial aid that might be needed to offset the potential adverse impact of higher fees on student enrollment. Probably

the most convenient method of need analysis that could be used would be the College Scholarship Service's (CSS) Uniform Methodology that all campuses and segments currently employ for federal campus-based programs, Cal Grant awards, and most institutional aid funds. The amount of additional aid required would depend upon the amount of the proposed fee increase, the number of financial aid recipients already enrolled, the number of additional students who might become eligible with higher fees, whether or not additional federal financial aid funds would partially offset the fee increase, whether or not the Cal Grant programs would be able to partially offset the higher fees for its recipients, whether the new aid program was designed to offset only the higher fees or to offset the higher fees and pending federal financial aid cuts, and on the kinds of additional self-help expectations that were incorporated into the new aid program. The purpose here is not to recommend which need analysis methodology should be employed or what the actual distribution mechanism and award options should be: the purpose is to identify the elements that need to be taken into consideration to insure the equity of treatment for financial aid recipients. First, the current income distribution of students and the current proportion of financial aid recipients within each segment will affect its financial aid needs. Second, any estimate of additional aid needs should take into consideration the availability of federal funds and Cal Grant funds in making an estimate of aggregate financial need, and these funding sources should be subtracted from that estimate to insure that there is no double counting, overawards, or major differences in the way segmental estimates of additional aid needs are arrived at. Third, whether only the fee increase or both the fee increase and federal aid cuts are in part covered by a new aid program is less important than the fact that all segments should design their programs to cover similar things. Fourth, while additional self-help expectations should be incorporated into any new aid program and similar self-help expectations should be adopted for similar students in all segments, the self-help amount should probably vary slightly depending upon the student's financial circumstances.

4. Estimating the Net Tuition Revenue Generated From Higher Student Charges if Additional Financial Aid Were Provided

The formulas for calculating net tuition revenues with additional aid are identical to those used for calculating tuition revenue without aid, except that any projected enrollment losses would be reduced and the cost of providing the new aid should be subtracted. Since the portion of total revenues that will be set aside for aid will vary from segment to segment depending on the amount of the increase and the unique composition of each segment's student population, the expected net revenues will need to reflect this in setting required offsets to State General Fund appropriations.

5. Estimating the Enrollment-Related Budget Reductions That Would Occur if the New Aid is Provided

Since only those undergraduates carrying at least a half-time load are eligible for financial aid in any aid program, the additional students retained as a result of a new aid program would be either full-time or more-than-half-time undergraduates and probably full-time graduate students. The conversion of the remaining headcount losses to FTE losses follows the same procedure as before although obviously no single conversion ratio can be used.

FOUR

ALTERNATIVE POLICIES FOR SETTING STUDENT CHARGES

Major issues in determining the level of student charges in higher education include not only the question of what share of the cost of education should be borne by students as opposed to outside sources of financial support, such as State and local government, but also the question of differential charges for different students. Among the elements or bases commonly used by states in determining appropriate levels of student charges are (1) a predetermined percentage of the cost of instruction in different types of institutions; (2) the level of students, such as lower division, upper division, or graduate; (3) a comparison with charges at other institutions; (4) the distinction between credit and noncredit courses or between regular and extension offerings; (5) differences in the future earning potential of students with different majors; and (6) anticipated budget shortfalls. This paper reviews each of these policies in turn.

BASING CHARGES ON THE COST OF INSTRUCTION

The cost-of-instruction method of setting tuition or required fees is currently used by Colorado, Florida, Kansas, Oregon, Washington, and Wisconsin for all students and by Massachusetts and New Hampshire for nonresident students. Michigan and Minnesota use variations of this method for setting both resident and nonresident student charges, and a number of other states are considering adopting it.

In general, this method requires a precise specification of all the components of an institution's budget. At the very least, it involves distinguishing between instructionally related costs and other costs, such as research and public services. Instructionally related costs include both the direct cost of instruction and a pro rata share of the costs for libraries, maintenance of plant, and other institutional services. Computing these costs requires uniform accounting procedures at all of a state's public institutions and some agreed upon procedures for assigning costs. This consensus is difficult to achieve, however, even in a state with only a few public institutions of public higher education, and the costs of securing the needed data increase dramatically with the level of detail and sophistication of the cost accounting system.

Even small technical adjustments in cost accounting procedures can have substantial financial implications, particularly for large systems. (For a thorough analysis of the methods and costs involved in implementing cost-of-instruction systems, see the Commission's report, Determining the Cost of Instruction in California Public Higher Education, Commission Report 80-13, 1980).

As currently practiced, the cost-of-instruction method is really a variety of different methods. The share of instructional costs that students pay almost always differs between resident and nonresident students. Commonly it also differs by type of institution, such as university versus community college, and often for students at different levels, such as undergraduates versus graduate students. Florida, however, computes general instructional costs for five different student levels: (1) lower division undergraduate, (2) upper division undergraduate, (3) graduate level prior to thesis or dissertation, (4) thesis or dissertation stage, and (5) professional. For resident students in its four-year institutions, Florida sets tuition charges at 30 percent of the cost of instruction at each student level. Most other states use fewer student levels in their computations and set tuition or fees in their four-year institutions at 25 percent of cost.

The state of Washington, which has one of the more careful and elaborate procedures for determining costs, has changed its approach frequently in recent years. The original proposal was to set community college student charges at 16.7 percent of instructional costs at two-year colleges, state college student charges at 20 percent of state college instructional costs, and university student charges at 25 percent of instructional costs at its two state universities. After modification by the Legislature, fees at the state universities were set at approximately 25 percent of its cost of instruction for undergraduates, those at the state colleges were set at 80 percent of the university level, and those at the community colleges were set at 45 percent of the university level. This year, Washington's assessment method changed again, with university resident undergraduates charged 25 percent of the cost of university instruction, state college undergraduates charged 75 percent of the university charges (an amount that is slightly less than 20 percent of state college instructional costs), and community college students charged 18 percent of community college instructional costs. (Most of the states using the cost-of-instruction method make some provision for the schools themselves to set their own student activity fees, although maximum limits are often established.)

Some states attempt to establish a connection between tuition or fee charges and educational costs without making such rigorous analyses of the cost of instruction. Such efforts normally involve

an attempt to separate direct and indirect instructional costs from other expenses, but not always. Occasionally, they involve little more than dividing total institutional appropriations by total full-time-equivalent enrollments.

In Illinois, Minnesota, and Michigan, the computation of educational costs lacks the precision of Washington, Colorado, and a few others. In Illinois, for example, the undergraduate tuition rate at public four-year institutions varies from 25.8 to 31.2 percent of instructional costs. In Minnesota, the Higher Education Coordinating Board approved a proposal several years ago to narrow the differences in the percentage of the cost of instruction students pay at the state's different kinds of public institutions--the University of Minnesota, the State University System, the Community College System, and Area Vocational Technical Institutes. By the end of the 1979-81 biennium, tuition revenue in any of Minnesota's institutions was to cover not less than 25 percent nor more than 30 percent of instructional costs. Tuition charges at these institutions continue to vary, of course, because instructional costs vary among types of institution, but the percentage of the costs of instruction that students are expected to pay and the percentage that Minnesota taxpayers are expected to subsidize are now more equitably distributed among students, institutions, and taxpayers.

In Michigan, students at community colleges are now expected to provide 24 percent of the revenues needed, although in the past the figure was as high as 33 percent. Students in Michigan's public universities are charged approximately 22 percent of total operating costs--not just instructional costs.

Ideally, a cost-of-instruction policy would assess each student charges calculated on the actual costs of his or her education depending on particular courses and majors; but this would produce an expensive administrative nightmare. In practice, therefore, separate tuition charges for each student have rarely been seriously considered. Moreover, a cost-of-instruction approach based on the student's major or field of study has other deficiencies. First, no clear-cut relationship exists between the costs of instruction in a discipline and the future earnings of its graduates and the adoption of a cost-of-instruction method based on each student's major would discriminate against students who choose careers which offer low financial rewards, such as teaching, the ministry, or homemaking. Such a system would tend to discourage students from enrolling in high-cost fields of instruction unless they were likely to be guaranteed large monetary gains from doing so. (Nursing provides an excellent example of a high-cost instructional program whose graduates do not receive high wages.) This particular approach to cost-of-instruction fee schedules would divorce the determination of student-fee levels from decisions

about society's needs and State goals and objectives for public higher education.

In summary, the cost-of-instruction method of determining student charges can be fairly objective, although determining the percentage of those costs that students should pay is inherently arbitrary. One of the method's main virtues is that it clearly relates student charges to one of the major individual benefits students receive from higher education--instruction. Generally, the cost-of-instruction method is based on the premise that the cost of providing postsecondary education should be shared in an equitable manner by all students through tuition and by the State through direct institutional subsidies and financial aid. When states set fees by employing different proportions of the cost of instruction in different segments, as Washington does, the effect is to alter the basic concept behind the cost-of-instruction method, often in response to historic or traditional segmental differentials that bear little relationship to instructional costs. While such variations are understandable, it is important to recognize that they implicitly reflect the idea of differential subsidies for students that often bear little relationship either to ability to pay or to instructional costs.

Some have argued that basing charges on an arbitrary percentage of an ever-increasing cost does not adequately consider the ability of students and their families to pay. Yet, unless costs increase at a rate which exceeds inflation and income growth or major changes occur in student financial aid programs, the relationship between cost-based fees and students' ability to pay would remain constant over time. Others claim that this method pits students against faculty by appearing to tie faculty salary increases to increases in student charges. While this claim is overly simplified, both it and the former argument illustrate potential problems of the cost-of-instruction method. There is also the question of timeliness: how often should costs be recomputed and in what manner? In states with large numbers of public institutions, such as California, the task of developing suitable accounting procedures and securing agreement on the assignment of costs would be formidable, to say the least. The cost-of-instruction method thus seems to work best in those states with few public postsecondary institutions.

BASING CHARGES ON STUDENT LEVEL

This approach might be considered a variation of the cost-of-instruction method, but not all the states that employ it make careful cost calculations. The assumption underlying the approach

is that since the cost of educating students varies considerably with their academic level, the amount they pay should reflect this difference. This does not mean that the students' share of instruction costs--the percentage of costs they are expected to pay--should increase depending on their level. It does mean that as instructional costs increase with levels, the amount that students at advanced levels pay should increase. The Carnegie Commission aptly summarized the rationale for this method when it stated, "We believe that tuition should be more nearly proportional to costs, rather than regressive against students at the lower levels" (1973, p. 12). Other proponents of the method argue that keeping charges lower during the first two years of college facilitates access to postsecondary education because it minimizes some of the financial risks until students can more accurately assess the likelihood of their successfully completing a degree.

New York State requires students at the same level to pay approximately the same charge whether they attend a two- or four-year institution. In Michigan, upper division undergraduates are expected to pay $204 (or 11.6 percent) more a year than lower division students, while graduate students pay $672 (or 34 percent) more than upper division students. At the University of Illinois, the lower division/upper division differential and the upper division/graduate differential are both $50 (or about 5 percent).

Most states, including California, have some differential in the charges paid by undergraduate and graduate students. In most cases, however, the difference is nominal and is not based on computed differences in the cost of instruction. Many states also distinguish between graduate and professional programs and assess different charges for students in academic master's or doctoral programs than for those in medical or law school. Florida, for example, distinguishes among three different types of graduate-level students and calculates costs and charges accordingly. In Washington, graduate students are charged 20 percent more than undergraduates, while professional students are charged 60 percent more than undergraduates. At the University of Wisconsin at Madison, undergraduates are charged $985, graduate students $1,370, and medical students $4,602. On the other hand, in California, graduate students in master's degree programs of the State University are charged the same amount as undergraduates. Graduate students at the University are charged $60 or 6 percent a year more than undergraduates, whether they are working toward a master's degree, a Ph.D., an M.D., or a J.D.

The Carnegie Commission recommended that tuition and fees be determined separately for four different levels of student: (1) the associate degree, (2) bachelor's and master's degrees, (3) the Ph.D. degree, and (4) other advanced professional degrees. Whether

this or some other breakdown is used, and whether charges are based on the cost of instruction at each level or on a standard ratio, this approach has some advantages over a mechanical, budget-based, institution-wide, cost-of-instruction approach. Most notably, it more strongly reflects conscious policy decisions about the goals and educational priorities of a state.

BASING CHARGES ON COMPARISONS WITH SIMILAR INSTITUTIONS ELSEWHERE

Student charges in public postsecondary education vary widely by state and by type of institution, but in general, the level of student charges in the public sector varies with the proportion of students enrolled in the private sector. Thus, except for Massachusetts and the District of Columbia, public tuition and fees are consistently higher in those states in which the private sector is relatively large and lower in those states in which it is relatively small. This fact may reflect the effect of prices at public institutions on the public-private enrollment mix; it may instead reflect the effect of a large private sector on the process by which public tuition is set; or it may result from a combination of both factors. In any event, the order in which a state's institutions of higher education developed, and the state's traditions and goals are important determinants not only of its public educational offerings but also of its student-charge levels.

Various sources such as the September 2, 1981, issue of The Chronicle of Higher Education and the College Scholarship Service's Student Expenses at Postsecondary Institutions, 1981-82, provide useful starting points for national and state comparisons of student charges. But national averages or even averages for each state serve little purpose in determining what student charges should be. Instead, a list of comparison institutions such as that used in the Commission's annual report on faculty salaries may provide a more appropriate basis for comparing student charges in California institutions with those at similar colleges and universities elsewhere. The results for the University of California's four public comparison institutions are presented in Table 1. Those for the California State University's 18 public comparison institutions are in Table 2.

University of California Comparison Institutions

As Table 1 shows, in 1980-81, three of the University's four public comparison institutions had resident undergraduate student charges that were higher than the average at the University's nine cam-

puses. The fourth--the University of Wisconsin-Madison--had charges that were similar to the University's for resident undergraduates. For nonresident undergraduates, only the University of Michigan at Ann Arbor had charges that were higher than those at the University of California, and only the University of Wisconsin-Madison among the remaining three was close. The average student charges for resident undergraduates at the University were 15 percent lower than the median for the four comparison institutions, while those for nonresident undergraduates were 25 percent higher.

At the graduate level, all the University's comparison institutions charged residents higher fees than did the University. In fact, the average resident graduate charge at the comparison institutions was 65 percent above that of the University average. For nonresident graduate students, however, the situation was somewhat different, with only Michigan and Wisconsin having higher charges and

TABLE 1

TUITION AND FEES AT THE UNIVERSITY OF CALIFORNIA AND ITS PUBLIC COMPARISON INSTITUTIONS BY STUDENT LEVEL AND RESIDENCY STATUS, 1981-1982

Institution	Undergraduate Resident	Tuition and Fees Nonresident	Graduate Resident	Tuition and Fees Nonresident
SUNY-Buffalo	$1,229	$1,929	$1,849	$2,434
UI-Urbana/Champaign	1,109	2,655	1,184	2,880
UM-Ann Arbor	1,861	5,197	2,500	5,292
UW-Madison	984	3,571	1,369	4,285
UC-Berkeley	981	3,861	1,016	3,896
Average for Comparison Institutions	1,296	3,338	1,726	3,723
Median for Comparison Institutions	1,169	3,113	1,609	3,582
Average for Nine UC Campuses	997	3,877	1,043	3,923

with the average for the comparison institutions 5 percent below that of the University's nine campuses. University of California charges for resident graduate students were 35 percent lower than the median for its comparison institutions, while those for nonresident graduate students were almost 10 percent higher.

California State University Comparison Institutions

Table 2 reveals that there is a much greater disparity between the student charges at the 19 campuses of the State University and its 18 public comparison institutions than between the University and its 4 comparison universities. The least expensive of the 18 institutions charges resident undergraduates 50 percent more than the most expensive State University campus, and most of the 18 charge resident undergraduates three or four times as much as does the typical State University campus. Yet the average resident graduate student at these public comparison institutions is charged $1,270 compared to an average of $316 at the State University. Although two of these comparison institutions charge resident graduate students less than resident undergraduates and two charge them essentially the same amount, most of the State University's comparison institutions have some kind of graduate-undergraduate fee differential, and the average is 16.8 percent. For both undergraduate and graduate nonresident students at the State University, the total tuition and required fees are greater than they are for the State University's comparison institutions. The State University charges all nonresident students $3,427, while the comparison institutions charge nonresident undergraduates an average of $2,722 and nonresident graduate students an average of $2,660.

California Community Colleges Comparison States

The California Community Colleges also stand out as exceptions. Table 3 summarizes the average student charges in selected states' community colleges, although there is often considerable local variations within each state. The figures for Colorado, Florida, Oregon, and Washington are particularly interesting because each of these states attempts to base student charges on a predetermined percentage of the actual costs of instruction. The method of computation varies, as does the percentage of instructional costs students are expected to pay, but in most cases the average charge in these four states was approximately $441 in 1980-81 and $519 in 1981-82. No state, aside from California, provides free community college education to its residents.

TABLE 2

TUITION AND REQUIRED FEES AT THE CALIFORNIA STATE UNIVERSITY AND ITS PUBLIC COMPARISON INSTITUTIONS, 1981-82

University or College	Undergraduate Resident Tuition and Fees	Undergraduate Nonresident Tuition and Fees	Graduate Resident Tuition and Fees	Graduate Nonresident Tuition and Fees
Bowling Green State University	$1,473	$3,228	$1,959	$3,714
Illinois State University	967	2,327	983	2,375
Indiana State University	1,110	2,550	1,008	2,208
Iowa State University	950	2,350	1,080	2,486
Miami University (Ohio)	1,430	3,130	1,990	3,890
Northern Illinois University	997	2,357	1,013	2,405
Portland State University	1,086	3,762	1,647	2,829
Southern Illinois University	996	2,341	1,046	2,452
SUNY-Albany	1,300	2,000	1,750	2,450
SUNY-College at Buffalo	1,153	1,853	1,725	2,210
University of Colorado	1,111	4,130	1,171	4,255
University of Hawaii-Manoa	481	1,156	582	1,407
University of Nevada-Reno	840	2,840	560	2,560
University of Oregon	1,092	3,768	1,653	2,835
University of Wisconsin-Milwaukee	973	3,458	1,164	3,468
Virginia Polytechnic Institute and State University	1,095	2,160	1,227	1,227
Wayne State University	1,238	2,644	1,232	2,640
Western Michigan University	1,267	2,949	1,062	2,477
Average for Comparison Institutions	1,087	2,722	1,270	2,660
Average for State University	316	3,151	316	3,151

Source: State of Washington Council for Postsecondary Education, 1982.

Clearly, it is in the Community Colleges and the State University that California's pattern of resident undergraduate student charges differs most markedly from that of other states although the absence of a graduate differential in the State University and the small size of the differential in the University also stand out. Table 4 provides a convenient summary of these differences for states that contain University and/or State University comparison institutions or that are included in the community college list in Table 3. The figures express the average student charges at commu-

TABLE 3

AVERAGE RESIDENT AND NONRESIDENT STUDENT CHARGES
FOR COMMUNITY COLLEGES IN SELECTED STATES
1980-81 AND 1981-82

State	Residents		Nonresidents	
	1980-81	1981-82	1980-81	1981-82
Arizona	$211	$260	$2,050	$2,265
CALIFORNIA	-0-	-0-	1,500	1,500
Colorado	567	636	1,939	2,184
Florida	445	462	890	924
Illinois	442	491	2,244	2,243
Michigan	534	624	811	935
New York	875	930	1,510	1,774
Oregon	445	508	1,740	2,085
Texas	250	260	530	540
Washington	306	471	1,188	1,830

Source: State of Washington Council for Postsecondary Education, 1982.

nity colleges and state colleges for resident undergraduates as a percentage of the average charges for these same students at a state's major university campus or campuses. The figures are based on total tuition and required fees charges to resident undergraduates in 1981-82.

Table 4 reveals that it is usually less expensive to attend a state college than the corresponding major state university. The difference is commonly, however. Indeed, nowhere else is the cost differential for resident undergraduates between a state college system and a university system as great as it is in California. Of course, the presence of a tuition free Community College system in California is a factor which contributes to this anomaly since State University campuses are the primary transfer points for the

modest portion of Community College students who actually transfer. In most other states, average resident undergraduate student charges in the community colleges are about 50 to 60 percent of those at the major state university.

This latter point is quite revealing because it illustrates some of the disadvantages of the comparison method. While the method can determine whether differences exist between California and other states with respect to student charges, it can neither explain why these differences exist nor determine whether they should continue. In short, the comparison method can help to determine what other states are doing and provide a context for assessing the similarities and differences between California and the rest of the country, but it cannot determine whether California could achieve its educational objectives by imitating the rest of the nation.

TABLE 4

AVERAGE STUDENT CHARGES BY SEGMENT AS A PERCENTAGE OF UNIVERSITY CHARGES, 1981-82

State	Community Colleges		State Colleges		University
	Amount	Percent	Amount	Percent	Amount
Arizona	$260	40%	$ 650	100%	$ 650
CALIFORNIA	10	1	316	32	997
Colorado	636	57	787	71	1,111
Florida	462	61	758	100	758
Illinois	491	44	955	86	1,109
Indiana	910	79	1,113	96	1,155
Iowa	592	62	900	95	950
Michigan	624	34	1,225	66	1,861*
Minnesota	675	53	776	61	1,264
New York	930	76	1,138	92	1,229
Ohio	825	60	1,300	94	1,380
Texas	260	58	397	88	452
Virginia	384	34	1,153	101	1,146
Washington	471	44	867	82	1,059
Wisconsin	839	85	920	93	984

*This figure represents an average of the lower division and upper division charges for resident undergraduates.

BASING COMMUNITY COLLEGE CHARGES ON THE DISTINCTION BETWEEN CREDIT AND NONCREDIT COURSES

Charging students for noncredit continuing education courses in the Community Colleges while maintaining a no-, low-, or some other fee policy for college transfer and vocational-training programs is another possibility. Community service courses in California are already required to be self-supporting, although until the passage of Proposition 13 they were partially subsidized by permissive community service tax overrides in some Community College districts. The switch making community service courses entirely self-supporting has already occurred in many districts and places them on much the same funding basis as extension courses in the University and State University. In the Community Colleges, however, the distinctions among credit, noncredit, transfer, vocational, remedial, adult basic, and community service courses remained blurred and are only now being sorted out with the assistance of a new course classification system. Furthermore, some districts such as San Francisco, San Diego, and North Orange have exclusive jurisdiction over all adult education courses, while in most other districts the K-12 system offers all such courses. Currently noncredit courses in community college districts are funded at a lower rate than regular program offerings. Courses in such areas as adult basic education, English-as-a-second language, citizenship, apprenticeship, short-term vocational, health and safety, home economics, education for the substantially handicapped, parenting, and educational programs for older adults are funded at the new rate in these districts; any other noncredit courses are supposed to be self-supporting. Some districts offer similar courses for credit and receive funding at the full rate, others receive funding at the noncredit rate, still others have noncredit courses that are fully fee supported, and some may try to switch some of the low or no funded courses to other classifications. Perhaps the new course classification system will enable the State to arrive at a more coherent, consistent funding pattern for community colleges, but until that happens the initiation and administration of the current system which is based on fuzzy distinctions leads to serious inequities among districts that bear little relationship to fundamental differences in actual program offerings. Further, the current funding pattern for the community colleges has not been shaped by a careful reexamination of overall state priorities.

BASING STUDENT CHARGES ON THE FUTURE EARNINGS OF THE STUDENT

If the rationale for a tuition policy is based in large part on the future earnings prospects of college graduates, it might also appear desirable to establish differential charges that recognize differences in future earnings. To be implemented, this method would first require an elaborate compilation of the future earnings potential of a wide variety of occupations. While this approach might seem more equitable in theory than the flat-rate approaches mentioned earlier, it is not without its shortcomings. First and most fundamental, it is impossible to forecast accurately the earnings potential of the staggering array of occupations that make up the modern economy. Second, even if the future earnings of a wide variety of occupations could be forecast correctly, this method divorces what a student is asked to pay from what he or she is able to pay. Third, basing current charges on students' future earnings potential ignores the fact that many students do not decide on a major until their junior year or later. Fourth, it also ignores the fact that there is not always a clear connection between students' majors and their future careers. Fifth, it ignores the substantial variations which exist in the earnings of people within the same occupation or profession. If implemented, such a system could be subject to manipulation and deceptive choices of majors.

Today the extent to which a college education insures higher future earnings is being debated. College graduates in a number of occupations apparently earn less than some unionized workers in industry and in certain skilled trades. Other college graduates clearly earn more than most nongraduates. If a state wants to try to recapture some of the costs of providing college instruction by a method that accurately and more nearly reflects the actual increased earnings of many of its graduates, then refinements in its income tax system may be a fairer way to achieve this goal. Furthermore, the graduated income tax, unlike a system of graduated tuition or fees, would not penalize those students who majored in subjects that led to less remunerative, yet socially desirable careers in what for most others are high paying occupations or professions (i.e., public interest vs. corporate law).

BASING STUDENT CHARGES ON THE ANTICIPATED DEFICITS IN SEGMENTAL BUDGETS

This approach is sometimes used in California. It means that students pay the difference, or some portion of the difference, between the amount the Governor, the Legislature, and the governing boards believe is required and the level of support the State can provide. This is sometimes justified in an emergency, such as the current-year budget reductions directed by the Governor in October 1981, which resulted in one-time surcharges. It is the approach which allows maximum flexibility to the State and to the governing boards. However, it offers no rational or predictable basis for the actual levels of student charges and no substantive basis for the establishment of those levels.

A special task force for the State University Chancellor's Office recently recommended basing a new emergency fee on next year's anticipated revenue gap which they defined as "the difference between a desired or program maintenance level of support and the state appropriations." The task force argued that this "approach accurately presents the policy question of the proper balance between state appropriations and student fees," but it could also present an open invitation to the State to change the balance whenever it is pressed for funds. Moreover, in both the short and long run, this approach establishes an unhealthy precedent by divorcing student charges from either the quality of instruction offered or its cost. An increase in student charges to offset State budget reductions would, in effect, "tax" students for General Fund revenue by indirectly forcing the imposition of a higher charge to compensate for the lower State appropriations. Moreover, if the increased charges did not cover the entire reduction, student charges would be increased at the very time that the educational services the students paid for were cut.

On a closely related point, uniform percentage cuts in segmental budgets may further exacerbate existing differences in the level of student charges among students and segments. This occurs because budget cuts may be, in part or in whole, passed on to students in the form of higher student charges, and the number of students who would pay the higher charges varies tremendously among the public segments. Over the past two years, following this fee setting procedure instead of creating an overall state policy has only served to widen the gap in student charges between segments without any apparent policy rationale.

FIVE

THE 1960 MASTER PLAN FOR HIGHER EDUCATION IN CALIFORNIA: PAST AND PRESENT*

Prelude to the Master Plan

A Master Plan for Higher Education in California, 1960-1975, was by no means the first State study of California higher education. In 1899, a 70-member California Educational Commission was created which made a recommendation about the governance of normal schools which led to the establishment of the State Board of Education. In 1919, a study by a joint committee of the Legislature recommended that the normal schools become State teachers colleges and commented without recommendation on the need for State-level coordination. State Higher Education in California: Recommendations of the Commission of Seven resulted from a study authorized by the Legislature in 1931 and conducted by the Carnegie Foundation. One recommendation led to the enactment of legislation creating a State council for planning and coordination to deal with problems of the relationship between the public schools and the University of California (Master Plan Survey Team, 1960, pp. 16-17).

The real precursors of the 1960 Master Plan, however, were the Report of a Survey of the Needs of California in Higher Education (Deutch, Douglass, and Strayer, 1948), and the Restudy of the Needs of California in Higher Education (McConnell, Holy, and Semans, 1955). Both were authorized by the Legislature and conducted by professionals in higher education. According to the authors of the Master Plan, both studies had great influence on the development of higher education in California. The earlier studies identified differentiation of function among the three public segments--particularly in occupational and adult education--to be an urgent problem. They also dealt with problems of plant capacity and utilization standards and led to the study of The Need for Additional Centers of Public Higher Education in California, (Semans and Holy, 1956).

Throughout this period leading to the 1960 Master Plan, most recommendations from the various studies were directed to two main actors for the three public segments of higher education--the Board of Regents for the University of California, and

*In preparing this paper, extensive use was made of an unpublished Commission staff paper on "California Postsecondary Education: 1960-1980," written in 1979, and "Planning Step 1: The Commission's Legacy from the 1960 Master Plan," an agenda item dated September 16, 1974, as well as the Master Plan itself.

the State Board of Education for what were then known as the California State Colleges. The Board of Education also had responsibility for the "junior" colleges, most of which were also part of unified school districts for grades kindergarten through 14. In 1945, a voluntary Liaison Committee of the two boards was established by resolution, with skeletal staffing provided by the University and the State Department of Education. Both the 1948 Survey and the 1955 Restudy of the Needs of California in Higher Education were conducted under the general direction of the Liaison Committee. Although this voluntary coordinating mechanism resulted in many agreements between the segments during its 15 years, it suffered from the weaknesses of inadequate representation of junior college interests, allegiance of its staff to the segments by whom they were employed, and an inability to assess the extent to which the agreements reached between the boards had been carried out (Master Plan Survey Team, 1960, p. 19).

These weaknesses had been noted first in the 1957 Restudy and became apparent to the Legislature in 1959 when 23 bills, three resolutions, and two constitutional amendments were introduced which dealt with establishing new institutions, changing the functions of existing institutions, and changing the structure for the organization, control, and administration of public higher education. Other factors which led to the Legislature's request for a master plan were the State's financial situation which necessitated new taxes in 1959, unilateral actions taken by the boards without involving the Liaison Committee, and certain concerted actions by the two boards with respect to new campuses which had implications for legislative action. Overall, the Legislature found that competition among the public segments and their campuses for funding for expansion of enrollments, facilities, and programs had become excessive, and that some new means had to be found to control the rapidly rising expenditures for this expansion (Master Plan Survey Team, 1960, p. 20).

It was in this climate that the Legislature, in Assembly Joint Resolution 88, adopted in the 1959 session, directed the Liaison Committee "to prepare a Master Plan for the development, expansion, and integration of the facilities, curriculum, and standards of higher education, in junior colleges, state colleges, and the University of California, and other institutions of higher education of the State, to meet the needs of the State during the next ten years and thereafter . . . ."

THE NATURE OF THE MASTER PLAN

The following six problems were selected for study by the Liaison Committee in preparing the Master Plan requested by the Legislature:

1. The size and distribution of enrollments among the segments by 1975, including questions related to the modification of admission requirements to change the distribution and enrollment projections for individual campuses of the University and the State Colleges;

2. The appropriate differentiation of function among the three public segments of higher education;

3. The priority list and timetable for establishing new four-year campuses, and the need for additional junior college facilities in certain areas of the State by 1970;

4. The estimated cost to the State for both capital outlay and operations for the first ten years of the Master Plan, including the proportion of the cost of junior college operations and capital outlay which should be borne by the State, the proportion of the cost of public higher education which should be borne by the student, the shifting of lower division students from four-year campuses to junior colleges, and possible economies in the operation of existing institutions;

5. California's ability to pay for the future development of higher education, with attention to both the proportion of the State's budget to be allocated for the support of higher education and the availability of non-State resources for financing public higher education; and

6. A mechanism for the organization, control, and administration of public higher education, including functions to be performed and implementation of any recommendations.

Technical committees were appointed to study enrollment projections, selection and retention of students, California's ability to finance higher education, costs of higher education, institutional capacities and area needs, and adult education. Three major areas of study not assigned to such committees were differentiation of function; the structure, function, and coordination of public higher education; and recommendations of priorities for establishing new institutions. The technical committees submitted reports presenting evidence to support Master Plan conclusions and recommendations which is seldom found in the published summary report known as the Master Plan. Recommendations in the area of faculty demand and supply were based on a Liaison Committee study of the subject which had been completed in 1958 (Holy and Semans, 1958).

The 1960 Master Plan was first of all a plan to accommodate the projected enrollment growth in California public higher education through 1970 in such a way that (1) all qualified undergraduate

students could enroll in at least one segment as freshmen and, if necessary, transfer to a four-year institution to continue their education; and (2) the State's ability to pay for the development of such opportunities was not exceeded. A critical element of the plan was a clear statement of differentiation of function among the three segments for undergraduate and graduate education and research, including the role of the junior colleges as part of the new tripartite system of California public higher education. Another essential element of the plan was the orderly establishment of new University and State College campuses to accommodate the projected enrollments, together with the identification of areas of the State not served adequately at that time by junior colleges. The Plan also included recommendations concerning support for the junior colleges to insure that they were adequately financed, with the State contributing its fair share. Recommendations were also made concerning student fees, the most important being that the long-established principle that the University and State Colleges be tuition free be reaffirmed, with tuition defined as student charges for teaching expense. Finally, to help bring all this about, the Plan recommended the establishment of the Coordinating Council for Higher Education--an advisory body with responsibility to (1) review the annual budget and capital outlay requests of the University and State College systems and comment to the Governor on the general level of support sought; (2) interpret the functional differentiation among the public segments and advise their boards about programs appropriate to each; and (3) develop plans for the orderly growth of higher education in California and make recommendations to the boards on the need for and location of new facilities and programs (Master Plan Survey Team, 1960, p. 3).

IMPLEMENTATION OF THE MASTER PLAN

The Master Plan contained a total of 67 separate recommendations, many of which were not incorporated into the Donahoe Act but have been adopted as policy by the segments. They were distributed among the following areas:

- Structure, Function, and Coordination: five recommendations relating to governance, the Coordinating Council, and differentiation of function among the segments;

- Selection and Retention of Students: 18 recommendations relating to freshman admissions policies and related studies or data collection, transfer policies and procedures, retention practices, the reduction of lower division enrollments, and State scholarships and fellowships;

- Institutional Capacities and Area Needs: 18 recommendations relating to utilization standards for physical plants, enrollment limitations, conditions for establishing new campuses, need for additional campuses, and studies of supply and demand in the professions for which the University has sole responsibility for preparation;

- Faculty Demand and Supply: eight recommendations relating to recruitment, financial assistance for retention, curriculum for graduate training for college and university teaching, and improved conditions of employment for faculty;

- Adult Education: four recommendations relating to a policy framework for coordination, use of an existing State Advisory Committee, and the need to differentiate between types of students for purposes of State support;

- Total Estimated Costs: 11 recommendations relating to State funds for Community Colleges and the use thereof, student fees, nonresident fees, student aid, computation of costs, ancillary services, and the inclusion of all State territory in Community College districts;

- Other: three recommendations relating to the transmittal of the recommendations, the need for a special legislative session to act on certain recommendations, and an expression of appreciation for the opportunity to make the Regents' and the State Board of Education's views known concerning how best to meet the problems of higher education in the 1960s.

LEGISLATIVE ACTION ON THE MASTER PLAN

The Donahoe Higher Education Act of 1960 incorporated several of the most significant recommendations contained in the Master Plan. Others that were not enacted into statute were adopted as policy by the governing boards of the segments, in some cases into regulations under Title 5 of the Administrative Code for the State University and the Community Colleges. The Donahoe Act has been amended numerous times during the ensuing 22 years without changing significantly the differentiation of function among the public segments recommended in the Master Plan. Most of these amendments have been additions which are compatible with the Master Plan, including the repeal of the statute which established the Coordinating Council and the enactment of new legislation which created the California Postsecondary Education Commission in 1973.

Among the provisions of the Donahoe Act which have remained virtually unchanged since its enactment 22 years ago are the following, as renumbered in an overall reorganization of the Education Code in 1976 in which the Act became Part 40 of Division 5 in Title 3, Postsecondary Education:

Section 66010 in Chapter 2 defines "public higher education" and makes the community colleges full partners in California higher education:

> Section 66010. Public higher education consists of (a) all public community colleges heretofore and hereafter established pursuant to law, (b) the California State University and Colleges, and each campus, branch, and function thereof heretofore and hereafter established pursuant to law, (c) each campus, branch and function of the University of California heretofore and hereafter established by the Regents of the University of California, and (d) the California Maritime Academy.

(Originally this section did not include the California Maritime Academy.)

> Sec. 66700. The public community colleges are secondary schools and shall continue to be a part of the public school system of this state. The Board of Governors of the California Community Colleges shall prescribe minimum standards for the formation and operation of public community colleges and exercise general supervision over public community colleges.

Section 66010 appears to be inconsistent with Section 66700, which includes community colleges as part of the public school system, but this apparent inconsistency was deliberate. Their definition as both secondary schools in the common school system and part of the tripartite system of higher education preserves their right to draw on the State's common school fund and to qualify for certain federal funding for vocational education.

Section 66013 emphasizes excellence:

> Sec. 66013. Each segment of public higher education shall strive for excellence in its sphere, as assigned in this part.

Chapter 7 is basically a statement of differentiation of function for the University:

> Sec. 66500. The University of California may provide instruction in the liberal arts and sciences and in the professions, including the teaching professions. It shall have exclusive jurisdiction in public higher education over instruction in the profession of law and over graduate instruction in the professions of medicine, dentistry, and veterinary medicine. It has the sole authority in public higher education to award the doctoral degree in all fields of learning, except that it may agree with the California State University and Colleges to award joint doctoral degrees in selected fields. It shall be the primary state-supported academic agency for research.

Architecture was amended out of the original statute as a profession in which the University has exclusive jurisdiction, and the final sentence concerning research was added.

> Sec. 66501. The University may make reasonable provision for the use of its library and research facilities by qualified members of the faculties of other institutions of public higher education in this state.

Chapter 8 for the State University begins with a statement about the new Board of Trustees whose establishment was recommended in the Master Plan.

Most of the sections in the chapter deal with the Board's membership, duties, and functions. Section 66608, however, deals with differentiation of function for the State University:

> Sec. 66608. The California State University and Colleges shall have as its primary function the provision of undergraduate instruction and graduate instruction through the master's degree. Presently established two-year programs in agriculture are authorized, but other two-year programs shall be permitted only when mutually agreed upon by the Trustees of the California State University and Colleges and the Board of Governors of the California Community Colleges. The doctoral degree may be awarded jointly with the University of California, as provided in Section 66500, or jointly with a private institution of postsecondary education accredited by the Western Association of Schools and Colleges and provided the proposed doctoral program is approved by the California Postsecondary Education Commission. Faculty research is authorized to the extent that it is consistent with the primary function of the California State University and Colleges.

This section has remained virtually unchanged since its initial enactment, although the original definition of the scope of instruction "in the liberal arts and sciences, in applied fields and in the professions, including the teaching profession," has been deleted, together with a limitation on faculty research "consistent with the facilities provided for that function." Finally, after the initial enactment, a provision was added for the doctoral degree to be awarded jointly with a private institution of postsecondary education under specified conditions.

Most of the legislation relating to the Community Colleges and their Board of Governors appears in Division 7 of the Education Code, rather than Division 5 into which the Donahoe Act was enacted, but Chapter 9 of Division 5 includes a section dealing with differentiation of function for these colleges:

> Sec. 66701. Public community colleges shall offer instruction through but not beyond the second year of college. These institutions may grant the associate in arts and the associate in science degree. Their program may include but shall not be limited to: standard collegiate courses for transfer to other institutions; vocational and technical fields leading to employment; general or liberal arts courses; and community services.

Only minor changes have been made in these Community College provisions in the Donahoe Act since 1960. Section 66701 was changed to limit instruction beyond the second year of college, rather than the fourteenth grade level, and to add community services as a function in 1974. Authorization to grant associate degrees was added as a technical change.

Although the Donahoe Act separated the State Colleges from the State Board and State Department of Education, the junior colleges were left under their jurisdiction. However, the Master Plan Survey Team concluded that Community Colleges should be governed by their own local boards, rather than unified or high school district boards. In 1967, the Legislature created the Board of Governors of the California Community Colleges and transferred most powers and responsibilities for the Colleges from the State Board and State Department of Education to the new Board of Governors and its staff.

Finally, the Donahoe Act created the Coordinating Council for Higher Education as an advisory body to the segments and to state officials which began operation in 1961. Statutes relating to the Council were amended several times during its 13 years of operation but, by the early 1970s, legislators and others in State government had reached the conclusion that further amendments would not in-

crease the Council's effectiveness, and that a new State agency for planning and coordination was needed. Assembly Bill 770 (Lanterman, 1973) repealed these provisions of the Act and added Chapter 11, California Postsecondary Education Commission.

Reviewing the implementation of the 67 recommendations in 1966, Coordinating Council staff concluded that about 90 percent had been at least partially acted upon during the first five years of the Master Plan (Coordinating Council, 1966). Taken in toto, these actions produced the following conditions which guided State-level planning in the 1960s:

1. With respect to access, the Community Colleges provided access to a majority of recent high school graduates seeking some form of collegiate education in California. The Master Plan encouraged this distribution of students by recommending that:

   a. The University should select its first-time freshmen from among the top one-eighth (12.5 percent) of California high school graduates, and that the State University should select its freshmen from among the top one-third (33-1/3 percent);

   b. Lower division enrollments in the two senior segments should be reduced in relation to those in the upper and graduate divisions until a ratio of 60/40, upper to lower division, is achieved;

   c. The Community Colleges should continue to admit high school graduates and others who can profit from instruction under an "open admissions" policy; and

   d. Students who were ineligible for freshman admission to the senior segments should be required to complete at least 56 semester units with a grade-point average of 2.0 (C) or better in order to be eligible to transfer.

2. With respect to the structure of the Community Colleges, they were to be community based and locally governed. However, the State was to have responsibility for seeing that:

   a. Minimum standards were established by the Board of Governors;

   b. They were adequately financed, with the State contributing its fair share (now the major share); and

c. All California residents had access to them.

3. With respect to facilities, standards for the utilization of instructional facilities in the public segments were to be established by the Coordinating Council as a basis for determining institutional capacities and the need for additional facilities to be funded by the State, with:

   a. Periodic inventories of all nonresidential space; and

   b. Recommendation of new standards, as needed.

4. With respect to adult education, to insure that adults had appropriate opportunity for postsecondary education, a State Advisory Committee on Adult and Continuing Education was established which functioned during and subsequent to the Master Plan but is no longer operative. The Postsecondary Education Commission has been assigned responsibility to "periodically review and make recommendations" concerning adult and continuing educational opportunities, consonant with the general thrust of the Master Plan (Education Code, Section 66903).

SIGNIFICANT LEGISLATION BETWEEN 1960 AND 1974

Access

Division 5 of Title 3 of the Education Code, which includes the Donahoe Act, has been expanded since 1960 without altering the Master Plan in any significant way. One of the most important additions is a declaration of legislative intent in 1970 with respect to access, which is followed by lengthy prescription of priorities for enrollment planning and admissions. The "intent" sections are the following:

> Sec. 66200. It has been and continues to be the intent of the Legislature that all qualified California youth be insured the opportunity to pursue higher learning.
>
> The enrollment situation and admissions policies and procedures among California's public institutions of higher learning have been the subject of extensive public concern, and admissions practice has failed to reduce public uncertainties.

> Sec. 66201. It is the intent of the Legislature that each resident of California who has the capacity and motivation to benefit from higher education should have the opportunity to enroll in an institution of higher education. Once enrolled he should have the opportunity to continue as long and as far as his capacity and motivation, as indicated by his academic performance and commitment to educational advancement, will lead him to meet academic standards and institutional requirements.
>
> The Legislature hereby reaffirms the commitment of the State of California to provide an appropriate place in California public higher education for every student who is willing and able to benefit from attendance.

These sections supplement Section 66011, stating that applicants qualified by law or admission standards established by the governing boards should be admitted to either the Community Colleges, the State University, or the University, and were added at a time when there was uncertainty that all qualified applicants could be accommodated in existing facilities. The problem was more serious for the four-year institutions than the Community Colleges, in that applicants were unable to obtain admission to the campus of their first choice, particularly transfer applicants from Community Colleges. The enactment of Section 66202, Categories for Enrollment Planning and Admission Priority Practice, was designed to alleviate this problem. First priority was to be given to continuing undergraduate students in good standing; second priority to California residents who had successfully completed the first two years of their baccalaureate program--that is, transfer and reentering students; third priority to California residents entering at the freshman or sophomore level; and fourth priority to applicants from other states and foreign countries. Priorities were also established by statute within these categories, for example, California residents who were recently released veterans and transfers from California Community Colleges.

During the 1960s, the Legislature also enacted two bills which established special programs for educationally and economically disadvantaged students in the State University and the Community Colleges. (The Regents of the University established a comparable program which was funded from non-State sources.) The introductory statements to the two State-funded programs are:

> Art. 7, Sec. 69620. There is a state student assistance program which shall be known as the State University and Colleges Educational Opportunity Program. It shall be the purpose of the program to provide educational assistance and grants for undergraduate study at the California

State University and Colleges to students who are economically disadvantaged or educationally and economically disadvantaged, but who display potential for success in accredited curricula offered by the California State University and Colleges . . . .

Art. 8, Sec. 69640. It is the intent of the Legislature that the California community colleges recognize the need and accept the responsibility for extending the opportunities for community college education to all who may profit therefrom regardless of economic, social and educational status. It is the intent and purpose of the Legislature to encourage local community colleges to establish and develop programs directed to identifying those students affected by language, social, and economic handicaps to establish and develop services, techniques, and activities directed to the recruitment of such students to and their retention in community colleges and to the stimulation of their interest in intellectual, educational and vocational attainment.

The Legislature finds that the establishment and development of extended opportunity programs and services are essential to the conservation and development of the cultural, social, economic, intellectual and vocational resources of the state.

Art. 8, Sec. 69641. An "extended opportunity program or service" is an undertaking by a community college, to be taught by instructors approved by the governing board, in the form and in accordance with procedures prescribed by this article, which is over, above, and in addition to, the regular educational programs of the college, having as its purpose the provision of positive encouragement directed to the enrollment of students handicapped by language, social, and economic disadvantages, and to the facilitation of their successful participation in the educational pursuits of the college. Participation in an extended opportunity program or service shall not preclude participation in any other program which may be offered in the college.

Residency

In 1972, the Legislature added a chapter to Part 41, Division 5, of the Education Code on Uniform Student Residency Requirements. The initial section (68000) declares legislative intent to be that public institutions of higher education shall apply uniform rules

in determining whether a student shall be classified as a resident or nonresident. The declaration is followed by a lengthy set of definitions, procedures, exceptions, and regulations to implement the Chapter and insure consistent application of the residency requirements among all institutions.

Governance

As noted above, in 1967 the Legislature established the Board of Governors of the California Community Colleges in Division 7, Part 44, of the reorganized Education Code and assigned it most of the State-level functions previously performed for the Community Colleges by the State Board of Education. A Chancellor and staff were appointed to carry out the duties and responsibilities assigned to the Board, many of which had previously been performed by staff in the State Department of Education. This action did not remove the Community Colleges from the public school system, nor did it change the colleges' status as community-based and locally administered institutions. However, it did result in greater attention being paid by State government to this segment. The passage of Proposition 13 in 1978, which led to the State's assuming the major share of Community College funding for operations, together with the State's overall fiscal problems, has of course increased still further the amount of attention given to the Community Colleges by State agencies with responsibility for fiscal matters.

FEDERAL DEVELOPMENTS IN THE 1970s

In 1972, Congress approved significant amendments to the Higher Education Act of 1965, particularly with respect to comprehensive statewide planning by statewide postsecondary education commissions. In order to receive federal funding for such planning, states were required to establish or designate a state commission "broadly and equitably representative of the general public and public and private nonprofit and proprietary institutions of postsecondary education in the State including community colleges, junior colleges, postsecondary vocational schools, area vocational schools, technical institutes, four-year institutions of higher education and branches thereof." Federal grants were to be made to allow the state commissions to expand the scope of studies and planning with respect to the utilization of both public and private postsecondary educational resources, to the end that all persons "who desire, and who can benefit from, postsecondary education may have an opportunity to do so."

The 1972 amendments also provided for the development of "a statewide plan for the expansion or improvement of postsecondary education programs in community colleges or both." Section 1001 of Title X specified that the plan include the designation of areas in the state in which residents did not have easy access to two years of low-cost postsecondary education, a statewide plan to achieve the goal of providing such access, and priorities for the use of federal and nonfederal resources to achieve such access. It also called for recommendations for the use of state and local financial support within the priorities, analysis of the duplication of programs and recommendations for coordination, and a plan for the use of existing and new educational resources to achieve access, including recommendations concerning federally assisted vocational education, community services, and academic facilities with respect to community colleges.

Although enacted by the Congress, these 1972 amendments to the Higher Education Act of 1965 were not funded at a level which would enable states to do the kind of comprehensive planning set forth in Title X, nor were regulations issued which would implement specific provisions relating to the state postsecondary education commissions. Instead, federal funding to increase access during the 1970s was for new and expanded student financial aid in the form of both grants and expanded loan programs. Now, federal funding for the state commissions has been eliminated although the comprehensive planning functions remain in statute.

STATE DEVELOPMENTS FROM 1974 TO THE PRESENT

The California Postsecondary Education Commission was created by the Legislature in 1973 with membership congruent with the provisions of Section 1202 of the 1972 Amendments to the federal Higher Education Act of 1965, and with broad responsibilities for statewide planning, coordination, and the gathering of information.

Two reviews of the 1960 Master Plan had been undertaken by 1972 which influenced legislative action establishing the Postsecondary Education Commission. One review was conducted for the Legislature's Joint Committee on the Master Plan. The second was made for the Coordinating Council's Select Committee to Review the Master Plan for Higher Education. While the two groups worked independently, many of their recommendations were similar. For example, both committees supported the differentiation of function among the public segments which had been recommended in the Master Plan and enacted into statute, and both recommended a reconstituted State

agency with a stronger planning function than had been performed by the Coordinating Council, which would serve as the federally supported 1202 Commission. The Joint Committee of the Legislature went beyond the Select Committee, however, in its recommendations on governance. It also recommended that the University and the State University extend the principle of differentiation of function to campuses within their systems. It recommended that a new Postsecondary Education Commission be assigned functions relating to planning, budget review, and program review, as well as planning functions assigned to 1202 Commissions. Regional councils were also recommended to promote cooperation and planning, together with a nontraditional "fourth segment" of public postsecondary education, and student affirmative action leading to equal educational opportunity.

The only statute to implement recommendations of the two committees was AB 770 (Lanterman, 1973) which established the California Postsecondary Education Commission. However, during 1974 the Legislature enacted a series of Assembly Concurrent Resolutions relating to Joint Committee recommendations, some of which requested action by the new Commission.

149. Goals for postsecondary education.

150. Admissions philosophy.

151. Ending underrepresentation by sex, ethnic background, and economic status.

152. Use of student fee revenues for financial aid.

153. Use of federal funds for regional planning in postsecondary education.

154. Use of programmatic budgeting and accountability.

155. Fiscal flexibility for State University and University campuses.

156. Differentiation of function in State University and University campuses.

157. Encouragement of educational innovation.

158. State work-study program in State Scholarship and Loan Commission.

159. Counseling centers, regional councils, innovation (with $59,000 budget).

160. Study of discrepancies in pay for teaching and research.

161. Study of discrimination against part-time students.

Of these resolutions, the two of greatest importance are 150 (admissions) and 151 (student affirmative action). The former is significant in that it set forth the Master Plan recommendations on eligibility pools for the University, State University, and the Community Colleges that had not been enacted elsewhere in statute. Although legislative resolutions do not have the force of law, the segments have adhered to provisions relating to admissions since the Master Plan.

Assembly Concurrent Resolution 151 has become an ongoing concern of the segments and the Commission because of its call for "addressing and overcoming by 1980, ethnic, economic, and sexual underrepresentation in the make-up of the student bodies of institutions of public higher education as compared to the general ethnic, sexual, and economic composition of recent California high school graduates." Since that time, the segments have proposed, the Legislature has funded, and the Commission staff has reviewed and evaluated a series of programs and services designed to overcome the underrepresentation in higher education of various minority groups, including students with disabilities.

Two significant legislative actions since 1974 in terms of their effect on California postsecondary education are the enactment of legislation relating to collective bargaining in the three public segments and to Community College finance. Collective bargaining for Community College employees was enacted into Section 3540 et seq. of the Government Code in 1975, and for University and State University employees into Government Code Section 3560 et seq. in 1978. Commission staff has undertaken a study of its impact and potential efforts on postsecondary education which will focus primarily on faculty bargaining. With respect to Community College finance after the passage of Proposition 13 in 1978, which reduced local property taxes as a major source of their funding, the Legislature suspended annual readjustments of apportionments based on attendance and provided a fixed amount of funds regardless of enrollment. In 1979, it returned the Community Colleges to attendance-based apportionments, reduced their incentive for growth by lowering the State's payment for enrollment increases, and funded credit and noncredit enrollments at the same rate. In 1981, it responded to a large increase in State-supported noncredit enrollments by (1) lowering the State's reimbursement for noncredit enrollments in courses for citizenship, English as a second language, parenting, vocational training and for disabled students, and (2) eliminating State reimbursement for all other noncredit offerings.

In addition, Assembly Bill 1626 mandated use of the Board of Governors' Course Classification System by the Community Colleges in order to distinguish more effectively the kinds of instruction they offer. In general, the State has limited funds for enrollment growth and restricted the kinds of reimbursement for enrollment in noncredit courses as one way of setting priorities for funding during fiscal stringency.

CONCLUSIONS

The 1960 Master Plan has served as a guide to both the segments of postsecondary education and the Legislature during the more than 20 years since it was adopted by the Regents and the State Board of Education. Few significant changes have been made in its major provisions by the Legislature, the exceptions being in the governance of the Community Colleges and the replacement of the Coordinating Council with the California Postsecondary Education Commission. In areas in which recommendations were not enacted into statute, the segments and the Coordinating Council and, more recently, the Commission have generally followed the policies set forth in the Master Plan. Thus the Plan appears to have achieved its purposes to this time.

SIX

THE STATE'S PROVISION OF ACCESS: 1960 TO THE PRESENT

THE MASTER PLAN APPROACH

The 1960 Master Plan was in a sense a plan to provide access to public postsecondary education through 1975 for all capable and interested young people at a price which both they and the State could afford. The five major planks in this plan for universal access consisted of (1) building campuses to which most students could commute, (2) charging no or low fees and no tuition, (3) maintaining open admission to the Community Colleges with an opportunity to transfer after successfully completing two years of lower-division work, (4) controlling the size of lower-division enrollment in four-year institutions to reserve space for Community College transfers, and (5) offering financial aid to a limited number of the best qualified students with financial need.

This State commitment to providing access to undergraduate education has been far more precise than its commitment to access to graduate and professional education. The 1960 Master Plan limited access to graduate and professional education by recommending that the University of California have exclusive jurisdiction over graduate instruction in most of the professions and the awarding of the doctoral degree, except by agreement with the California State Colleges to award a joint doctorate in selected fields. At the time of the Master Plan, however, the State Colleges broadened their master's degree offerings beyond professional education to include a wide range of master of arts and sciences degrees in both liberal arts and the applied sciences. Also, subsequent to the Master Plan, the State funded the development of new medical schools on the University campuses at Davis, Irvine, and San Diego, and a new law school at Davis, as well as additional graduate programs in engineering, business and management, and many other fields.

Proximity of Campuses

Until quite recently, the State's primary planning mode for providing access to higher education involved projecting enrollments, acquiring sites for new campuses, building facilities, planning educational programs, and hiring faculty and staff to teach and administer the institutions in time for the first students to

enroll. The challenge was to establish new campuses and build new facilities fast enough to keep up with burgeoning enrollment projections. This approach to State-level planning reached its apex in 1955 when proposals to establish 8 new State Colleges (in addition to the 11 which were already in operation) were incorporated into a bill introduced into the Legislature, with amendments offered subsequently to add 11 to the number first proposed. The bill was not passed, but those anxious to have new colleges for their legislative districts continued to seek approval for them by amending other bills. No new colleges were approved in 1955 but one bill and several resolutions passed which called for studies of the need for expanding higher education in certain areas (Semans and Holy, 1957, p. 1).

Both the University Board of Regents and the State Board of Education were interested in the orderly expansion of access by means of creating new facilities in all three segments of public higher education. The joint staff of the Liaison Committee of the two Boards, which served at that time as a voluntary coordinating mechanism for higher education in California, was then asked by the Boards to conduct systematic studies of possible areas of need in various parts of the State. The joint staff's report to the Liaison Committee, A Study of the Need for Additional Centers of Public Higher Education in California, made recommendations based on six principles which had been approved earlier by the Boards (Semans and Holy, 1957, pp. v-vi):

1. The expansion of existing institutions and the establishment of new ones should depend on the optimum use of the state's resources for higher education in relation to the greatest relative need both geographically and functionally.

2. Differentiation of functions so far as possible of the three segments of public higher education . . . is imperative if unnecessary and wasteful duplication is to be avoided. This principle has been confirmed by the approval of the State Board of Education and the Regents of the University of California of the recommendation in the Restudy of the Needs of California in Higher Education which reads as follows:

   ". . . that the junior colleges continue to take particular responsibility for technical curriculums, the state colleges for occupational curriculums, and the University of California for graduate and professional education and research."

3. The assumption that adequate junior college facilities will be provided through local initiative and state assistance prior to the establishment of additional state college or University campuses is basic to the state college and University enrollment estimates in this report.

4. The financing of new publicly supported institutions should be such that it [the financing] interferes in no way with the needs, including necessary improvement or expansion, of existing ones.

5. In order that a possible new institution may serve the greatest number of eligible students, it should be placed near the center of the population served by it.

6. Extension of publicly supported institutions to the degree that the continued operation of private ones long in existence and seemingly serving the community well is jeopardized, is not in the public interest.

Briefly, these principles support differentiation of function among the segments, proximity of new campuses to potential enrollments, reliance on the junior colleges to offer initial access through local initiative in providing adequate facilities, and concern about competition between public and independent colleges for enrollment. Conclusions reached in the study included the following (Semans and Holy, 1957, pp. 109-110):

- Local areas must establish more junior colleges and the State must provide additional University and State College facilities, if future citizens of collegiate age are to have educational opportunity equal to that offered in the 1950s.

- The recommendation of the Restudy of the Needs of California for Higher Education should be reaffirmed: "In view of the outstanding success of the California junior college program, the Restudy staff recommends that active encouragement be given . . . to the establishment of new junior colleges in populous areas . . . ."

- Because of the magnitude of the estimated enrollments, all possibilities for accommodating these enrollments should be explored. These should include examination of factors related to use of the physical plants, class and classroom size, relative amounts of laboratory and nonlaboratory instruction, and the use of educational television.

The authors of the report, Semans and Holy, pointed out the urgent need for expansion of facilities in all three public segments of higher education by developing existing campuses and establishing new ones, but they avoided making specific recommendations to establish particular campuses on the grounds that such recommendations were inappropriate. Instead, they called attention to 14 areas of the State without adequate junior college facilities (53 high school districts in 16 counties, with estimated 1955 full-time college enrollments ranging from 250 to 2,100 each). They also studied 13 areas of the State in 18 counties with respect to enrollment potential in State Colleges in 1965 and 1970, on the basis of which they suggested priorities for establishing new institutions. These areas ranged in size from Alameda County, with a projected annual full-time-equivalent enrollment of 13,600 for 1970, to Amador County, with a projection of 600. They assigned priorities for new University campuses to five of the ten sections of the State considered for possible expansion of that system: Southeast Los Angeles/Orange Counties, Santa Clara Valley, San Diego, San Joaquin Valley, and the Redding area, in that order (pp. 41-43, 49-50, and 87-94).

The 1960 Master Plan made considerable use of these findings as well as those from the Restudy of the Needs of California in Higher Education which was published in 1955. The Master Plan recommended that the State should "give encouragement to making junior college facilities available for the school districts not now adequately served," noting evidence that indicated a need for 22 new junior colleges with an estimated full-time enrollment of 56,650 by 1975. It also recommended that two more State Colleges should be established and in operation by 1965 in the vicinity of the Los Angeles Airport and in the San Bernardino-Riverside area, in addition to the four new campuses authorized by the 1957 Legislature. It urged completion without delay of the three new campuses approved by the Regents in 1957 for San Diego, Orange County, and the Santa Clara-to-Monterey area for a total projected enrollment of 30,000 by 1975 (Master Plan Survey Team, 1960, pp. 9-11).

The next study of the need for additional facilities, California's Needs for Additional Centers of Public Higher Education, was completed by the Coordinating Council for Higher Education in 1964. The Council found an immediate need for a new State College campus in Kern County, primarily because this metropolitan area had no four-year college available to its residents, and a "definite ultimate need" for three additional State College campuses in Contra Costa, Ventura, and either San Mateo or Santa Clara Counties. It found the same kind of need for additional University campuses in the San Francisco Bay Metropolitan Area and the Los Angeles/Ventura/San Bernardino/Riverside/Orange area. Recommendations about junior colleges in 1964 were limited to the need to have the whole

of the State included within districts (California's Needs for Additional Centers, 1964, p. 7).

The last major study of the need for additional college and university centers was published by the Coordinating Council in 1969 under the title, Meeting the Enrollment Demand for Public Higher Education in California Through 1977: The Need for Additional College and University Campuses. The Council concluded that any University and State College undergraduate enrollment demand through 1977-78 in excess of currently planned facilities and campuses could be met by a combination of measures which did not include the establishment of additional campuses. It also concluded that 11 additional junior colleges in 9 districts would probably be required prior to 1977-78, but rejected proposals for new or additional colleges in 19 other junior college districts. In the late 1960s, the junior colleges (now Community Colleges) were placed under the jurisdiction of a new, State-level Board of Governors with its own Chancellor and staff, who disagreed with the Council's findings about the lack of need for some new colleges. The Board subsequently conducted its own study, concluded that the Council had underestimated the need for additional campuses, and negotiated with the Council about the ultimate number to be authorized.

A Council study of the need for additional centers scheduled for 1972 was not performed since both a Council and a legislative committee were then studying the 1960 Master Plan. Since then, the work of the Council and then the Commission has focused on segmental requests for approval to establish particular campuses and, more frequently, off-campus centers administered by particular campuses.

The campuses of California's three public postsecondary education segments are for the most part in place in 1982, with the possible exception of additional facilities on a few campuses. Since the mid-1950s, the State has funded the development of three new University campuses--San Diego, Irvine, and Santa Cruz--with a total 1980 enrollment of more than 28,000, and eight State University campuses--Northridge, Bakersfield, Hayward, Stanislaus, Fullerton, Sonoma, San Bernardino, and Dominguez Hills--with a total 1980 enrollment of more than 58,000. The State and local districts together have established 30 new Community Colleges which offered instruction for the first time in the 1960s and 13 more in the 1970s, including 3 which operate in a non-campus mode. These 43 new Community Colleges now enroll more than 370,000 students for credit, or about 32 percent of the total credit enrollment in all California Community Colleges in 1980.

Most of the State's capital outlay funding has been for comprehensive campuses, with very little funding provided for the construction of off-campus facilities. In the Community College

segment, districts have provided a large share of the capital outlay funding and, in a few cases, have provided all funds needed for a campus or certain facilities. Nonetheless, the State has funded almost all instructional and related costs for off-campus courses offered by Community Colleges on the same basis as for on-campus instruction and is funding a limited amount of off-campus instruction for the State University. In fall 1980, the Community Colleges were offering instruction at 2,765 off-campus locations, the State University at 220, the University at 29, and the independent colleges and universities at 418, for a total of 3,432 locations (California Postsecondary Education Commission, 1981c, p. 3). Thus the public and private segments have extended access beyond what was envisioned in State-level master planning by offering instruction--often for credit--at a large number of off-campus centers which are usually more convenient than the primary campuses to part-time students who are enrolled only for limited objectives, particularly during the late afternoon and evening hours.

Student Charges

The Master Plan recommended that the governing boards for higher education "reaffirm the long established principle that state colleges and the University of California shall be tuition free to all residents of the state." At the same time, the Plan recommended that "Each system devise a fee structure . . . to cover such operating costs as those for laboratory fees, health, intercollegiate athletics, student activities, and other services incidental to, but not directly related to, instruction," and that ancillary services such as parking be self-supporting (Master Plan Survey Team, 1960, pp. 14-15). In making these recommendations, the Survey Team considered the questions of how much of the costs of higher education should be borne by the students, and whether existing fee structures should be altered. The recommendations were based on the Survey Team's belief that students should assume greater responsibility than in the past for financing their education by paying fees sufficient to cover the costs of noninstructional services. At the time of the Master Plan, the University charged an "incidental" fee of $60 per semester to resident students, while the State Colleges charged a "materials and service" fee of about $33 per semester. In addition, students paid student body and other fees related to special types of noninstructional services (p. 172). The Master Plan said virtually nothing about fees for junior college students, probably on the assumption that junior colleges continued to be part of the common school system and thus free of student charges to residents of the districts which operated the colleges. Except for user fees, the Community Colleges have remained free of the kind of student charges recommended in the Master Plan for the other segments. They have moved

toward increasing access by permitting the free flow of students between districts without imposing nonresident fees.

The University's "incidental" fee has become the "Registration Fee" for the support of student services as recommended in the Master Plan, with students charged $463 per year in 1981-82 (increased to $510 in 1982-83). In 1970, the University Regents added an "Educational Fee" in an amount of $150 per year and doubled it at the request of the Governor to $300 for 1971-72. By 1981-82, this fee had been increased to $475 per year for undergraduates, which included a one-time surcharge of $25 for the spring quarter, and is expected to be increased to $625 for 1982-83, for a total general campus charge of $1,135 for undergraduates, plus an average of $59 in additional mandatory campus fees. Revenue from the Educational Fee was first used for capital outlay projects but since 1976 has been used primarily for student financial aid and related programs. Additional uses of the revenue from student fees in the University will probably be made in 1982-83.

The State University "Materials and Service Fee" became the "Student Services Fee" in 1974, after which the State began to absorb the cost of instructional supplies and audiovisual materials which had previously been reimbursed from the fee. Student charges related to this fee have risen from $66 per year in 1959-60 to $316 in 1981-82 (including a one-time spring term surcharge of $46) and will probably reach $322 in 1982-83--amounts which are the same or slightly less in constant dollars than that charged in 1972-73.

The State has kept student charges at the State University at a minimum by absorbing some instructionally related expenses which were included in the student fee 20 years ago. In contrast, while the University remains tuition free, its total undergraduate fees for resident students have increased to a level and are used for purposes which were probably beyond those envisioned in the Master Plan.

Admissions Policies

The third element of California's plan for access has been its policy of (1) open-door admission to the Community Colleges for all high school graduates and others at least 18 years of age who could benefit from the instruction offered and (2) the opportunity to transfer to the University or the State University upon successful completion of a Community College transfer program. The Master Plan Survey Team recommended that the University and the State University raise their freshman admission standards "materially" so as to select their students from the top one-eighth and the top one-third of the graduates of California public high schools,

respectively (pp. 4-5). By implication it endorsed the continuation of open admissions to the Community Colleges so as to make access and opportunity available to anyone who was interested.

The Plan also recommended that a small number of students who had not met regular standards in high school or at a Community College be admitted to the University and the State University by means of "special action." The size of this category was doubled subsequently in order to admit disadvantaged students with academic potential who had been handicapped by factors related to ethnicity or economic condition during their previous educational experience. The University increased its percentage of special action admissions for disadvantaged students still further to 6 percent when it last raised its freshman requirements so as to be able to admit some who qualified under the old standards.

Since 1960, the University and the State University have adhered to the eligibility pools recommended in the Master Plan and have assisted in the verification of the size of these pools periodically. Meanwhile, the Community Colleges have maintained and perhaps expanded their open-admission practices by assuming that almost anyone who is motivated to enroll will benefit from the instruction offered, regardless of his or her previous educational experience and achievement. This interpretation of policy is applied to both high school dropouts and transfer students who have failed academically in other colleges and universities. Open admissions has been accompanied by extensive remedial programs and services for students with a wide range of competencies in the basic skills. Thus open admissions in effect means that a functionally illiterate high school dropout may enroll in a Community College, progress through remedial instruction into courses appropriate for baccalaureate degree credit, and transfer to the State University with a C grade-point average or to the University with a C+ average after completing 56 semester units of baccalaureate level courses. The free flow of Community College transfer students under conditions of effective articulation has enabled the University and the State University to require more rigorous high school preparation of their own freshman applicants without denying access to baccalaureate programs to those who did not meet the higher standards when they graduated from high school.

The remedial programs and services offered by the University and the State University to students who are otherwise qualified for admission must also be counted as part of the State's current commitment of resources to access since they qualify for State funding, as do Community College remedial programs and services. The State has also supported its commitment to access through funding the Educational Opportunity Program (EOP) in the State University and the Extended Opportunity Programs and Services

(EOPS) in the Community Colleges (described in "Turning the Corner With Respect to Access" below), both of which provide services to disadvantaged students to enhance their likelihood of success. (The University has funded its Educational Opportunity Program, the oldest of the segmental efforts, largely from its own resources.)

Open admissions complements the factors of physical facilities and low fees in the State's commitment to access. Open admissions would be an empty promise if the State had neither provided the funds to acquire campuses and build facilities in anticipation of increasing need for space through at least the 1970s, nor adhered to the policy of no tuition and low student charges while appropriating sufficient funds to assure a high quality of instruction to all who enrolled. The future of this threefold commitment is no longer clear, however, since the still strong demand by California's citizens for access may exceed the State's ability or willingness to pay for it in the very near future.

Control of Enrollments

The Master Plan Survey Team affirmed a recommendation from the 1955 Restudy of the Needs of California in Higher Education that the University and the State University should emphasize policies which would reduce their lower-division enrollments in relation to upper- and graduate-division enrollments by about 10 percentage points below 1960 percentages, to a ratio of about 40/60 (p. 6). The team concluded that about 50,000 lower-division students who, according to status quo projections, would have otherwise enrolled in the University and the State University, should be accommodated in the then junior colleges. The team also concluded that such diversion would not directly prevent high school graduates from continuing their education beyond the lower division if they met the transfer requirements of the four-year institutions. While this diversion would appear on the surface to be a denial of access to lower-division students who were qualified for the University and the State University, it sought to ensure that all students had access to some segment of higher education and that those who were interested and qualified could continue to the completion of a baccalaureate degree.

This Master Plan policy was highly successful in diverting students to the junior colleges and thus increasing their percentage of the overall enrollment significantly. As a result, the State University not only reached but exceeded the suggested 40/60 ratio of lower-division to upper- and graduate-division enrollments. The University, however, has not been able to do so and continues to enroll freshman classes significantly larger than the number of Community College transfer students. Although the Legislature and others

have been concerned from time to time that qualified Community College transfer students are being denied access to the upper division on some campuses and to some programs on most campuses, there is little evidence that this part of the Master Plan has not worked for the general benefit of both young people seeking higher education and California taxpayers.

Financial Aid

The Master Plan Survey Team appears to have viewed State-funded student financial aid as complementary to other elements of the State's plan for access. In discussing the State Scholarship Program, it noted that "Not only has the program afforded the youth of California a greater freedom of choice, it may also effect net savings to the taxpayers in both capital investment and operating costs. Independent institutions have been encouraged to expand enrollment and facilities; in the long run such expansion may relieve somewhat the pressure on public higher education" (p. 78). Recommendations in the Plan dealt with increasing the program to provide more and larger grants, allowing Community College students to retain their grants until they transferred to a four-year institution with student charges, establishing a new and separate program of subsistence grants to recipients of State scholarships, and creating a new State Graduate Fellowship Program to encourage more college graduates to enter teaching.

Since 1960, the State has increased its "scholarship" program many times and has established the Graduate Fellowship Program, but it has not enacted the kind of program of subsistence grants recommended in the Master Plan and earlier. Instead, the Legislature established a modest aid program (Cal Grant B) for disadvantaged students who are awarded subsistence but not "scholarship" grants when they first enroll in college.

In sum, the State appears to have relied on physical proximity to public college and university campuses, low or no charges for students in public institutions, and open admission to the Community Colleges to provide access and opportunity for the majority of the lower-division students. An implicit assumption has been that the cost to the student of commuting to a local or regional institution would be little more than the cost of attending high school, and that the most efficient way for the State to provide access was to establish two-year colleges within commuting distance of nearly all California residents and to build University and State University campuses in all major centers of population.

TURNING THE CORNER WITH RESPECT TO ACCESS

For almost ten years after the 1960 Master Plan, the State's plan for access continued to emphasize the accommodation of projected enrollments, the construction of new campuses and the expansion of facilities on others, and the hiring of faculty and staff to assure admission for all undergraduate students with the capacity and motivation to benefit from higher education. The latter condition has been interpreted liberally by the Community Colleges which admit most applicants without formal consideration of their capacity to benefit. As the State approached the 1970s, however, concerned educators, legislators, and others came to the conclusion that access and opportunity were not really available to certain groups who had been conditioned by past educational experiences or current circumstances to view themselves as excluded from higher education. Due to poverty and cultural disadvantagement, some citizens were not even aware of the State's commitment to access. In other words, opportunity did not exist unless people knew about it and saw it as relevant to them. In particular, disadvantaged young people and their parents needed to be convinced that higher education would make a difference in their earning power and in their lives generally.

Reaching Out to the Disadvantaged

Those concerned with the barriers to access faced by the disadvantaged concluded that simply adding more of the same kinds of facilities, programs, and personnel would not lead to the desired result of similar levels of participation by all ethnic and socioeconomic groups. They agreed--though not unanimously--that new kinds of public postsecondary institutions were not needed to meet the special needs of disadvantaged or nontraditional students. New institutions were not created for them, but, instead, the State's earlier unwritten plan for access and opportunity was in a sense amended to provide for a variety of outreach programs to increase their awareness of, interest in, and motivation for postsecondary education. In other words, the State's approach to access changed to reaching out to attract and recruit those who had not been enrolling on their own initiative, rather than simply making opportunity available to those who sought it.

The initial State-funded programs for disadvantaged students were the Extended Opportunity Programs and Services (EOPS) in the Community Colleges and the Educational Opportunity Program (EOP) in the State University (and with non-State funding in the University). In addition, special State-funded programs soon included new support

programs and services for those who enrolled as a result of the outreach efforts, small grants to some students to help cover various costs, and, later, pre-college programs to improve preparation for college and university work. Since 1980, the major State-funded addition to EOPS in the Community Colleges has been Project Transition, a program involving internships to encourage and assist potential transfer students in their transition to the State University. In the State University, the major addition to EOP has been the Core Student Affirmative Action Program on all 19 campuses, funded statewide in 1979, a year after three pilot projects which experimented with nontraditional outreach approaches to high school students. In the University, several outreach programs have been added to EOP. In 1976, the University established the Partnership Program to assist low-income and ethnic minority students in grades seven through nine to begin preparation for college and university entrance. In 1979, it added the Partners Program to serve Partnership Program students in grades nine through eleven. (These programs were renamed "Early Outreach" in 1981.) Subsequently, the Legislature provided funds for the University to establish Academic Enrichment Programs on four campuses in which faculty work with secondary school students to improve their basic skills in specific disciplines.

Two other programs receiving State appropriations are the California Student Opportunity and Access Program (Cal-SOAP), which involves five pilot, interinstitutional projects to increase the enrollment of low-income students in postsecondary education, and MESA (Mathematics, Engineering, Science Achievement), which was established with private funds but has had partial State support since 1978. MESA was designed to increase the number of ethnic minority students enrolled in mathematics and science-related disciplines in college by helping them to get the necessary preparation in secondary schools.

The federal government recognized the need for special programs and services for disadvantaged students several years before these State programs were funded. Examples of early federal programs are Talent Search, Upward Bound, and Special Services for Disadvantaged Students. The next major contribution of the federal government to increasing access for low- and then middle-income groups was the enactment and funding of various financial aid progams which enabled students to obtain grants and loans for the cost of subsistence and other expenses as well as tuition and fees. Title IV, (Student Assistance) of the 1972 Amendments to the Higher Education Act of 1965 included the Basic Educational Opportunity Grants (now known as the Pell Grants), Supplemental Educational Opportunity Grants (SEOG), and State Student Incentive Grants (SSIG). Federal student loan programs also increased in volume and scope during the 1970s. Thus the State's relatively modest program of grants for

tuition and fees (Cal Grant A and C) and limited program of grants for subsistence costs and, after the first year, fees (Cal Grant B) were enormously enhanced by federal funds, thus increasing choice of institution for qualified students who commuted to local or regional institutions for mostly financial reasons.

Aid to Students With Disabilities

The State's commitment to access for students with disabilities dates back to 1976 when Assembly Bill 77 established and funded programs to provide services to students with disabilities in the California Community Colleges. That same year the Legislature approved Assembly Concurrent Resolution 201, which called for the design of a plan to overcome the underrepresentation of students with disabilities in the three segments of public higher education by 1980. A separate federal commitment to access for disabled students, based on the Rehabilitation Act of 1973, prohibits institutions from discriminating against such students because of their disabilities and requires institutions to provide reasonable accommodation under penalty of loss of federal institutional funds, without providing separate funds for this purpose.

The State's commitment to access for disabled students has included providing special funding for services and designing an equitable funding mechanism for programs and services in all segments. The Legislature formally reaffirmed this commitment in 1981 with the passage of Senate Bill 1053 which stated that students with disabilities should continue to be assured access to public postsecondary education and that the Legislature would make funds available to the public segments to ensure the provision of necessary supportive services. Funding for services for students with disabilities continues to be provided by the Legislature in all three public postsecondary segments and is an important factor in ensuring access for these students to postsecondary education in California.

State Goals for Access

Except for a very general statement in Section 1 of Article IX of the California Constitution, the State does not appear to have had any explicitly stated goals relating to access to higher education until the 1970s. The statement in the Constitution reads:

> A general diffusion of knowledge and intelligence being essential to the preservation of the rights and liberties of the people, the Legislature shall encourage by all suitable means the promotion of intellectual, scientific, moral, and agricultural improvement.

No explicit State goals for access emerged from the 1948 Report of a Survey of the Needs of California in Higher Education, the 1955 Restudy of the Needs of California in Higher Education, or the 1960 Master Plan. Instead, these reports contained recommendations for actions to expand access which were based on assumptions about physical proximity, student charges, admissions standards, and the need to control lower division enrollments discussed earlier in this paper. The unwritten goal appears to have been the orderly expansion of access to higher education in California and the prudent use of the State's resources to do so. The means to achieve the goal which was common to the several plans involved projecting enrollments and having the necessary campuses, facilities, programs, and staff in place by the time they were needed, all of this on a regional basis so as to make it possible for most students to attend college close to home.

Growth in enrollment and expansion of facilities were so great during the 1960s that no one could be sure whether the State's plan for providing access was sufficient. Thus, in 1970 the Legislature enacted a series of statements of intent about access which said in effect that all qualified California resident applicants should be admitted to at least one of the three public segments of higher education, and that each student who had the capacity and motivation to benefit from higher education should have the opportunity to continue "as long and as far as his capacity and motivation, as indicated by his academic performance and commitment to educational advancement, will lead him" (Education Code Section 66201). Still another section in which these statements of intent appear refers specifically to youth (Section 66200). No reference was made to the scope of the State's commitment to access, although the circumstances under which these statements of intent were framed seem to have limited the commitment for the most part to undergraduate education.

Access Goals for the Disadvantaged

Beginning in 1973, the first explicit goals for access began to appear in State-level planning documents. The reports of both the Select Committee of the Coordinating Council and the Joint Committee of the Legislature on the Master Plan contained statements of proposed goals for higher education, including access. The goals statement in the latter report was incorporated into Assembly Concurrent Resolution 149 in 1974 and approved by the Legislature but not amended into the Donahoe Act in bill form. Among its ten goals for public postsecondary education through 1984 were the following:

- Equal and universal accessibility for persons of both sexes and all races, ancestries, incomes, ages, and geographics in California;

- Lifelong learning opportunities for persons with capacity and motivation to benefit;

- Diversity of institutions, services, and methods; and

- Flexibility to adapt to the changing needs of students and society.

Assembly Concurrent Resolution 150 (1974) also expressed legislative intent with respect to access:

> a major goal of California for the remainder of the 1970s shall be to insure that considerations of quality early schooling, ethnic grouping, family income, geographic location, and age no longer impede the access of any citizen to the benefits of higher education.

Assembly Concurrent Resolution 151 (1974) contained a related goal:

> the student body of institutions of public higher education in California shall approximate, by 1980, the general ethnic, sexual, and economic composition of recent California high school graduates.

This resolution also expressed the Legislature's intent that this goal be achieved by providing additional student spaces and committing additional resources, rather than by rejecting any qualified applicants. The Resolution called for the three public segments to prepare plans to achieve the goal of similarity in the make-up of their student bodies and that of recent high school graduates by 1980.

The Commission's first Five-Year Plan (1975, pp. 13-16) stated 31 State goals which included the following for access:

- Access: Sufficient institutions, faculty, and programs to allow every qualified California resident to participate in the type of undergraduate education for which he or she is qualified, without restrictions due to sex, ethnicity, socioeconomic level or cultural background.

The Commission's most recent five-year plan, The Challenges Ahead (1981, pp. 19-20), included "Improving Access for Underrepresented Groups" and "Controlling Financial Barriers to Access and Choice" as "Priorities for 1982-1987."

The statement reads in part:

> In this sense [access as the ability of all capable and motivated students to enroll in postsecondary education], access is ensured if the State maintains enough institutions of postsecondary education so that all those citizens capable and motivated to pursue higher education have a place to do so, and it is up to individual citizens to seek out these educational opportunities.
>
> On the other hand, access can be defined as the removal of financial and socio-cultural barriers to either an individual's or a particular group's participation in higher education.
>
> The Commission believes that access in the first sense has been achieved; it is access in the second sense--the removal of economic and socio-cultural barriers to participation in higher education--to which our efforts must continue to be directed. While some success in increasing access and educational equity has been achieved, underrepresentation of various groups still persists within postsecondary education.
>
> The primary considerations in any student's choice of whether and where to participate in postsecondary education should be educational, that is, made in terms of the students' qualifications and educational needs rather than his or her financial situation. The State should not allow development of excessive differentials in cost among the segments--whether in tuition, fees, or other charges--which could distort the distribution of numbers and types of students among the segments by placing certain educational offerings beyond the financial reach of some students.

According to its recent Plan, the Commission's work in the next five years will include these priorities related to access, together with ones on improving student preparation and skills, assuring ethical recruitment and student choice, improving planning and program review, and selective review of Master Plan provisions, all of which involve some aspect of access.

QUANTITATIVE OUTCOMES RELATED TO ACCESS

A qualitative assessment of the success of the State's plan for access over the past 20 years would require, at a minimum, judg-

ments about the match between the diverse interests and abilities of California youth and institutional characteristics, academic standards, and program offerings. The basic question is how well both public and private interests have been served by providing geographically accessible opportunity for higher education, restricting freshman admission to the University and the State University to somewhat arbitrarily determined admission pools, opening Community College admission to all adults while depending on these institutions to prepare well-qualified students to transfer into baccalaureate programs, adhering to the differentiation of function among the segments which was set forth in the Master Plan, and other basic strategies the State has used to ensure access for its citizenry, such as the use of independent institutions.

There is little basis for making such a qualitative assessment of the State's provision of access since the time of the Master Plan. Instead, reliance must be placed on measures of growth and change over time, with an assumption that the State has never knowingly sacrificed quality of education in order to expand access.

Multiplication of Campuses

As California's population and the related demand for higher education increased during the last two decades, the system of public higher education increased from five to eight general University campuses (plus the expansion of the health sciences-related San Francisco campus), from 12 to 19 State University campuses, and from 63 to 106 Community College campuses in 70 districts. The number of off-campus centers where instruction in State-supported courses was offered in fall 1980 was at least 29 by the University, 220 by the State University, and 2,765 by the Community Colleges. The total number of off-campus locations in which the University and the State University offer some kind of instruction has decreased since 1976, but the number of registrations for these courses has grown (California Postsecondary Education Commission, 1981c, pp. 3-8).

The importance for access of proximity to a four-year institution is illustrated by differences in college-going rates for recent high school graduates in counties with varying opportunities within their boundaries, such as Fresno, San Joaquin, and Yolo Counties. In Fresno County, where a State University campus is located, 2.2 percent of the high school graduates enrolled in the University and 14.6 percent in the State University in fall 1980, compared with statewide totals of 6.0 and 9.0 percent, respectively. In San Joaquin County, where there is no public four-year institution, only 3.3 percent enrolled in the University and only 3.4 percent in the State University but a high of 5.7 percent enrolled in indepen-

dent institutions, most of them at the University of the Pacific in Stockton. The Davis campus of the University is located in Yolo County; 11.6 percent of Yolo County's high school graduates enrolled in the University and 9.3 percent in the State University in fall 1980, many of the latter at nearby Sacramento State University.

Another indication of the importance of proximity is the fact that 90 percent of the recent high school graduates in Fresno County who enroll in the State University do so at the Fresno campus; 95 percent of those in Butte County enroll at California State University, Chico; and almost 60 percent of those in Santa Clara County enroll at San Jose State University (California Postsecondary Education Commission, 1982a, Appendix B). Similarly, Community College transfer students tend to transfer to the nearest State University campus or, if there is no such campus, may not transfer at all. For example, about 80 percent of the transfer students from Butte College enroll at California State University, Chico; nearly 80 percent of the Grossmont College transfers enroll at San Diego State University; and nearly 85 percent of the transfers from the State Center District (Fresno and Kings River) enroll at California State University, Fresno. On the other hand, Cabrillo College and Santa Barbara City College, with a nearby University but no State University campus, send a larger proportion of transfers to the University than do most Community Colleges (ibid., Appendix E).

Enrollment Growth

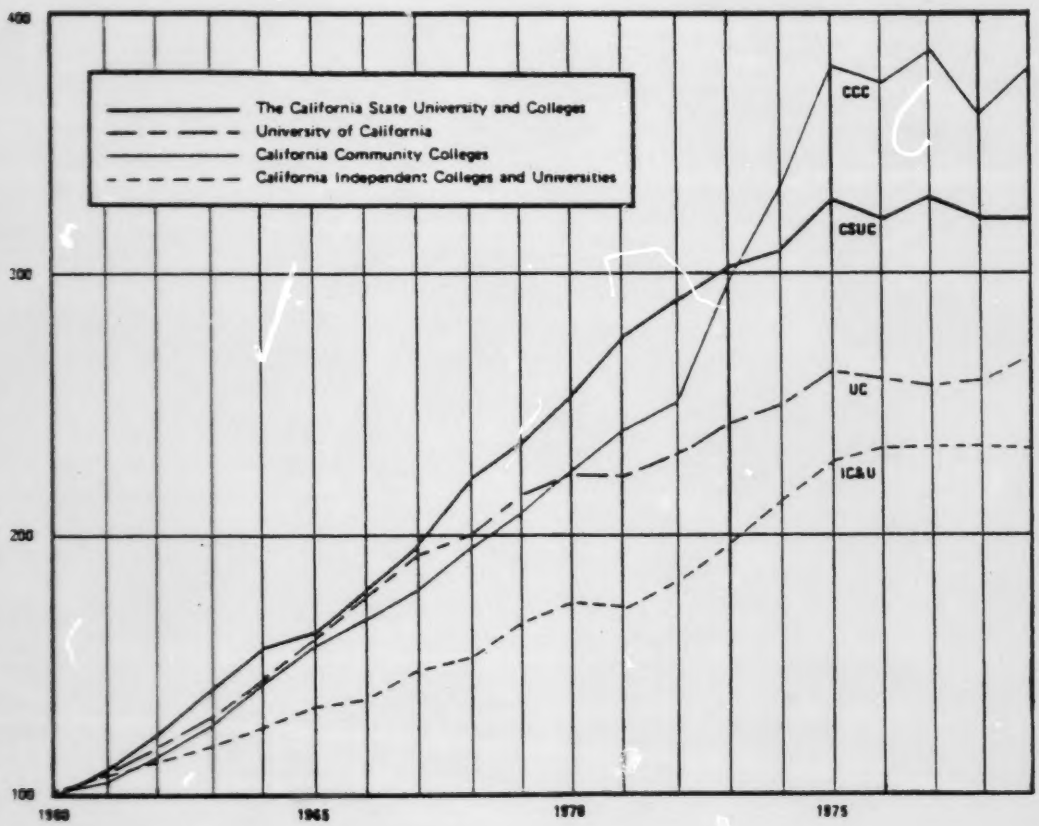
Figure 1 displays indices of growth in total fall enrollments in the four segments of California higher education between 1960 and 1979, using a base figure of 100 for each segment in 1960. State University growth exceeded that of the other segments until 1974, when, for the first time, Community College growth exceeded that of the other segments. During the first ten years of the Master Plan, the growth index was quite similar for all three public segments, while growth of the independent sector was slower. Looked at another way, the Community Colleges enrolled 66.8 percent of all students in the public institutions of higher education in 1960, while the State University had 21.9 percent and the University 11.3 percent. The segments' enrollments increased by 280, 223, and 167 percent, respectively, between 1960 and 1979, by which time the Community Colleges accounted for 71.5 percent of the total headcount enrollment, the State University 19.9 percent, and the University 8.5 percent.

Comparisons may be made between growth in college and university enrollments between 1960 and 1979 and other population measures as one measure of change in access. While total headcount enrollment

in the three public segments increased 254 percent between 1960 and 1979, the civilian population in California increased only 44 percent, and public school enrollment in grades nine through twelve increased 62 percent. Between 1966 and 1979, twelfth-grade graduates from public and private California high schools increased 14 percent, while the enrollment of first-time freshmen in the public segments, regardless of age, increased 65 percent. The percentage increases in first-time freshmen for the State University and the Community Colleges were 65 and 68 percent, respectively, while the increase for the University was 34 percent (California State University, 1980, pp. 192, 196, 196.1, 198, and 199).

FIGURE 1

INDICES OF GROWTH OF FALL TOTAL ENROLLMENT
IN FOUR SEGMENTS OF HIGHER EDUCATION, FROM 1960



Source: California State University, 1981, p. 191.

Thus total enrollment growth in all segments of higher education vastly exceeded the percentage increase in the California civilian population during the two decades after the Master Plan. Furthermore, the percentage increases in first-time freshmen in each of the three public segments between 1966 and 1979 exceeded the percentage increase in California high school graduates by a large margin. By these quantitative measures, the State's plan for increasing access would appear to have been a success.

Changes in Student Mix

The State's plan for increasing access might also have been expected to result in the enrollment of larger proportions of students from low-income families, women, and members of ethnic minority groups. Data from 1960 to the present are not readily available for disadvantaged students. However, in terms of sexual representation, the State University has reported that its ratio of men to women in the total undergraduate enrollment changed from 60/40 in fall 1960 to 50/50 in fall 1980. In the University, the percentage of male undergraduates has remained slightly higher than that of women throughout this 20-year period, with the latest figures showing a ratio of 51.5 to 48.5. In the Community Colleges, the ratio of men to women was 63/37 in 1961 but by 1980, it had changed to 45/55.

The changing ethnic composition of students in the public segments has been documented by the Commission since 1975, as shown in Table 1. Equality of opportunity for California youth with different

TABLE 1

PERCENTAGE CHANGE IN UNDERGRADUATE HEADCOUNT ENROLLMENT OF SELECTED ETHNIC MINORITY GROUPS BY SEGMENT, 1975-1980

Ethnic Group	Percentage Change CCC	CSU	UC	Total
American Indian	+54%	-22%	+ 8%	+36%
Asian	+97	+37	+34	+76
Black	+26	+ 8	0	+23
Chicano	+39	+27	+28	+37
Total Undergraduate Enrollment	+ 7%	+ 3%	+ 5%	+ 6%

Source: California Postsecondary Education Commission, 1982b, Appendix C.

ethnic backgrounds was not a specific concern in the Master Plan. Ethnic data for the 1960s are scarce because of a prohibition against asking students for such information at that time when it was feared that colleges and universities might discriminate among students on the basis of ethnicity if it were indicated.

Since 1975, percentage increases in the undergraduate enrollment of certain ethnic minorities are impressive. For all three segments combined, the percentage increases for Blacks, Chicanos, Asians, and American Indians between 1975 and 1980 were significantly larger than the percentage increase in total undergraduate enrollment. The largest gain for each minority group occurred in the Community Colleges, although Asians and Chicanos experienced significant increases in all public segments. Black enrollment remained virtually unchanged in the University and increased only slightly in the State University. American Indians had a percentage decrease in the State University (which may be accounted for by missing State University ethnic data for both years).

These gains over the past five years are promising but should be interpreted in the context of the changing ethnic distribution of California high school graduates. From that perspective, further gains need to be made in enrolling and retaining Blacks and Chicanos in order to meet the objective of equal representation of all ethnic groups in relation to their proportions among high school graduates.

Estimates of increases in numbers of students with disabilities who have been served by the three public segments are shown in Table 2. The percentage changes in this table may underestimate the actual changes. The figures for 1980-81 represent students with verified disabilities who received services while the earlier figures include an unknown number whose disabilities were not verified. Nevertheless, although the numbers served are relatively small, the percentage increases are significantly larger than the overall enrollment increases in the segments during this period.

Increases in Student Aid

At the time of the Master Plan, the California State Scholarship Program which the Legislature had established in 1955 provided 2,560 students with tuition scholarships worth about $1,224,000. These scholarships paid tuition and fees up to $600 per year for "promising" students with demonstrated financial need. At that time, the major federal aid program available to students was the institutionally administered loan program which was part of the National Defense Education Act of 1958 and which has since become the National Direct Student Loan program. Veterans' educational

benefits and Social Security survivors' benefits were other types of federal aid available to students during the 1950s and 1960s.

By 1975-76, the number of recipients of State scholarships (now Cal Grant A) had increased to 36,073, with a total award amount of about $44,954,000. Cal Grant B, a special program for disadvantaged students which provided funds for subsistence as well as tuition and fees, was added in 1969, and Cal Grant C, which funded tuition, fees, and related expenses for needy students in occupational programs at both private vocational schools and Community Colleges, began in 1972. In 1975-76, 8,164 Cal Grant B and 1,054 Cal Grant C awards were made for a total amount of about $10.4 million and $1.3 million, respectively. By 1980-81, the numbers of awards had increased to 38,735 for Cal Grant A, 21,411 for Cal Grant B, and 2,305 for Cal Grant C, with total award amounts of $62.6, $30.7, and $2.9 million, respectively.

Meanwhile, federal student aid had increased to an estimated total of more than $278 million for Pell Grants, Supplemental Educational Opportunity Grants, other major grants, National Direct Student Loans, and College Work-Study. (Federally guaranteed loans made by

TABLE 2

ESTIMATES OF NUMBERS OF STUDENTS WITH DISABILITIES RECEIVING SERVICES BY SEGMENT AND PERCENTAGE CHANGE BETWEEN 1975-76 AND 1979-80

Segment	Numbers Served 1975-76	1980-81	Percentage Change
Community Colleges*	11,306	40,546	+259%
State University	3,796	4,464	+ 18
University of California**	874	1,090	+ 25
Total	15,976	46,100	+186%

*The Community Colleges now serve students with developmental and learning disabilities who are not served in substantial numbers by the University and the State University.

**The base year for the University is 1976, rather than 1975, since earlier data are not available. The 1976 data were obtained in an informal telephone survey made by the University administration in July 1977.

lending institutions are not included in these figures. Furthermore, student aid from State and federal sources do not account for all grants and loans made to students.)

Access to California postsecondary education increased significantly as a result of these new and expanded student aid programs. The Commission's analyses of college-going rates for first-time freshmen which began in 1974, when new federal programs were being funded, show little evidence of change in rates or in the distribution of students among the segments during the past seven years. It is possible that these rates would have declined or that many students would have enrolled in the Community Colleges rather than four-year institutions in the absence of the aid programs.

SUMMARY

The State's plan to offer universal access and opportunity for postsecondary education through the baccalaureate degree has depended heavily on locating local colleges and regional universities in centers of population which appeared to be capable of generating enrollments of at least a minimum size. This plan has put Community Colleges and off-campus centers within the reach of all but a small percentage of California's population and put State University campuses in most metropolitan areas of the State. University campuses are also located for the most part in areas of heavy concentration of population. While not all campuses have grown in accordance with their original plans, most physical plants were in place before the State entered its most critical period of fiscal constraints.

The segments and the State have preserved the policy of open-door admission to the Community Colleges while raising standards in the University and the State University and at the same time maintaining opportunities for transfer from the Community Colleges. Until recently, student charges have been kept low in the State University and the Community Colleges, and the University has remained technically tuition free. Financial aid from State and federal sources has increased in a way which would assure continued access if it continued. The original plans for access, which pre-date the 1960 Master Plan, have been expanded within the past decade to include special efforts to equalize opportunity for students disadvantaged because of economic, cultural, and educational factors, or because of disabilities. All in all, the State has used a multitude of related and reinforcing strategies over the past years to assure full access to undergraduate education for all who are capable and motivated.

SEVEN

FINANCE POLICIES, PROSPECTS, AND ISSUES*

This essay describes the financing of postsecondary institutions in California since the 1960 Master Plan. In retrospect, the areas of debate over finance have remained remarkably constant during these 20 years:

- the effect of finance on quality and diversity;
- alleged encroachments on autonomy by the budget;
- methods of funding enrollment changes;
- levels of student charges in public institutions;
- the role of State aid for private institutions;
- balancing State funds and local control for the Community Colleges; and
- funding services for special clientele.

This continuity does not indicate that efforts toward solving the dilemmas within these areas have been inconsequential or, alternately, that the challenges are insurmountable. Rather, these areas seem to contain the enduring issues of the fiscal relationship between government and institutions. These dilemmas will likely never be answered with finality.

Within the universe of postsecondary finance in California, certain limits have to be imposed on this essay. Because of the Commission's role as the State's coordinating and planning agency, it seems reasonable to pay primary, though not exclusive, attention to postsecondary financing provided through the budget mechanisms of the State of California. Specifically, this essay answers three questions: What are the State of California's major policies for financing the current operations of postsecondary institutions? What is the ability and willingness of the State to support the public institutions of postsecondary education? And what will be the major issues at the State level during the remainder of the 1980s?

*This paper is reproduced from pp. 35-80 of The Challenges Ahead: Issues in Planning for California Postsecondary Education, 1982-87 (Commission Report 81-26), published by the California Postsecondary Education Commission in November 1981. Circumstances have, of course, changed its estimates of revenue and expenditure levels.

The essay is divided into five parts:

- Part One describes the size and sources of support for all postsecondary institutions in California, as background for what follows.

- Part Two discusses the State's policies for financing these institutions and argues that the policies come from California's Master Plan for Higher Education, the peculiar nature of educational "costs," and the State's fiscal system.

- Part Three deals with past and projected support levels of public institutions in California. It shows that the State did not reduce support for its public institutions as a proportion of its total expenditures during the "taxpayer revolt," but that funding levels have fallen significantly compared to levels in other states.

- Part Four asks whether the future promises a stronger showing and answers, probably not. Some doubt about the continuing ability of public institutions to secure their past share of State support appears reasonable.

- Part Five catalogues the issues which will draw attention during the 1980s: the problems with formulas for the public segments; increasing accountability for public institutions; the need for institutions to diversify their sources of support; the flux of policies for student charges and financial aid; and the changing role of the State in financing private institutions.

CURRENT SUPPORT FOR THE OPERATIONS OF POSTSECONDARY INSTITUTIONS

In terms of diversity and resources, no word better describes California's system of postsecondary education than "abundance." Over 400 colleges and universities offer degrees of every sort; they spent more than $6.9 billion in 1978-79 doing so. New York was next in total expenditures--but 40 percent less. Beyond California's colleges and universities, more than 200 school districts run Adult Schools, and 39 counties offer Regional Occupational Programs to provide continuing education and technical skills for their residents. Over 2,000 proprietary schools offer certificate programs ranging from flight instruction to cosmetology and collected an estimated $31.1 million in 1978-79 from their students. Although no comparable measures exist for instruction by noneducational institutions, recent surveys reveal much inservice training

by business and government (California Postsecondary Education Commission, 1978b; Kost, 1980). This universe of postsecondary education is displayed in Table 1.

Within this universe, there are four general sources for support:

1. The Federal Government: During the past 20 years, Washington has pursued three policies in postsecondary education: to provide access for disadvantaged students through financial aid and enforcement of civil rights legislation; to support research which is "in the national interest;" and to provide some institutional aid which promotes certain professions or vocational training. In terms of its fiscal commitment to implement these policies, the 1972 amendments to the 1965 Higher Education Act marked a dramatic redirection of federal efforts. That year, the debate was joined over how best to provide aid: through institutional grants based on enrollments and costs, or through assistance direct to students and portable to any institution. The latter approach prevailed, and has since overwhelmed all others in the constellation of federal programs. Including guaranteed student loans, federal financial aid approached $900 million in California during 1979-80. Following financial aid in size was the $300 million committed to the laboratories of the U.S. Energy Research and Development Administration, which are managed by the University of California. In addition, the federal government provided funds for vocational education, agricultural extension, and research projects. Federal spending for higher education in California approached $2 billion in 1978-79.

2. The State of California: The State has primary responsibility for public institutions and provides some financial aid to students in private institutions. Currently, it supports virtually all of the regular instruction and administration of the University of California, the California State University and Colleges, and the California Community Colleges--a total State commitment, including property tax revenues, of $3.5 billion in 1980-81. The California Constitution prohibits direct State aid to private institutions, so that the policy is to offer substantial student aid programs, with the dollars being provided to students in independent colleges and universities. The State is also involved heavily in "adult" or "continuing" education, primarily through the Adult Schools and the California Community Colleges.

3. Consumers: Students pay a variety of charges to California's colleges and universities: $948,454,000 in tuition, fees,

TABLE 1

ENROLLMENTS AND EXPENDITURES FOR INSTITUTIONS OFFERING POSTSECONDARY EDUCATION IN CALIFORNIA, 1978-79

Sector (see Note below) and Segment	Number of Institutions	Enrollment	Total Expenditures	State Appropriations
FIRST (COLLEGES AND UNIVERSITIES)				
Public Institutions				
University of California	9 campuses	127,664 headcount 119,628 FTE	$2,700,547,356	$ 767,049,891[a]
California State University and Colleges	19 campuses	326,513 headcount 228,939 FTE	$ 908,005,644	$ 682,983,474[a]
California Community Colleges	104 colleges	1,159,819[b] headcount 642,456 ADA	$1,257,245,838[c]	$1,126,000,000[e]
Other Institutions and Agencies of Postsecondary Education[d]	Not Applicable	c. 2,000 headcount	$ 97,757,000	$ 82,435,000
Adult/Vocational Education:				
Adult Schools in K-12	c. 225 districts	147,089 ADA	$ 136,355,889	$ 128,930,615[f]
Regional Occupational Programs/Centers	39 counties	16,297 ADA	$ 41,147,011	$ 33,619,286[g]
Independent Institutions				
Degree Granting	368 total 125 reporting	180,884 headcount	$1,724,239,000	$ 1,484,000[h]
SECOND (PROPRIETARY)				
Profit-Making Schools which Offer Vocational Training	2,123	c. 300,000	$ 31,080,000[i]	$ 2,759,139[k]
THIRD (NON-EDUCATIONAL INSTITUTIONS)				
Business, Industry, Labor Unions, Government, Military, and Community Groups	? ("an extensive array and range of efforts and of considerable financial investment"[j])	?	? (one example: Federal agencies spent $10,500,000 training their employees)	?

a. Appropriated to the System or institutions directly.
b. Fall term, 1978.
c. General Fund Expenditures of the 70 districts.
d. California Postsecondary Education Commission, the California Maritime Academy, Hastings College of the Law, State Operations of the Community Colleges, and the Student Aid Commission.
e. State General Funds for regular apportionments and "bail out," plus property tax revenues (including State funds for property tax relief).
f. Local Assistance plus State Operations.
g. State General Funds plus income from revenue limits, including property taxes.
h. Total of Cal Grants A and B to students at independent institutions.
i. Estimated by multiplying the total number of students by $1,036, the average cost for an occupational course in 1979. See California State Department of Education, 1980, pp. 4-5.
j. California Postsecondary Education Commission, 1978b, p. 29
k. California Occupational and Training Grants (Cal Grant C), available to students in proprietary schools.

Note: The expansion of educational opportunities beyond high school has caused some problems of definition and labeling. In Three Thousand Futures, the Carnegie Council on Policy Studies in Higher Education offers the following terms:

> We identify the Third Sector as institutions that give postsecondary education as an adjunct to noninstructional activities: instruction by a corporation, a research agency, a museum, a trade union, the armed forces. The First sector is made up of nonprofit colleges; the second of profit making institutions. The boundaries of the First Sector and of the Second Sector and the addition of the Third Sector mean that the edges of the total universe of postsecondary education are softer than ever before.... The Second Sector and the Third Sector are nibbling away at the enrollments of the First Sector, as well as tapping new markets (1980, p. 22).

Sources: Governor's Budget, 1980-81, pp. E 82-84, 125-127, 190.
California State Controller, 1980, pp. 532, 533, 582-589.
Office of the Legislative Analyst, 1980a, p. 964.
California State Department of Education, 1980, pp. 3-4.
National Center for Education Statistics, 1981a, p. 2.

and charges for all educational activities in 1978-79, which cover almost 20 percent of their total Educational and General Expenditures. Privately controlled institutions, of course, levy much higher student charges: 50.3 percent of their Educational and General Expenditures. In addition, consumers purchased goods and services such as books, food, dormitory rooms, tickets to sports events, hospital care, and research projects. Income from this source, broadly defined, appears to constitute about one-third of the total income of California's colleges and universities in 1978-79, or $2 billion (National Center for Education Statistics, 1981a, p. 124).

4. Gifts and Endowment: The total market value of this income source for all California colleges and universities in 1978-79 was $1,561,026,000, with a yield of $91 million or 5.8 percent. Again, public and independent institutions were distinct. The 135 public colleges and universities recorded a year-end market value of $392.8 million for their endowment (the vast majority being concentrated in the University), while 125 privately controlled institutions reported $1,087.1 billion--two and a half times as much (National Center for Education Statistics, 1981a, p. 242). Among the public institutions, only the University of California rivals the larger independents in the size of its endowment.

A second way to catalog sources of support is to organize them according to the role that the providers play in the day-to-day life of the institutions. This alternate way suggests some of the dynamics and stresses within the institutions. After all, the expectations of providers are crucial in directing the energies of the institutions: the further away the source, the more freedom for institutions but the more potential for misunderstandings.

1. Internal Assets: Some resources are internal--assets of public and private institutions which are managed, almost exclusively, by administrators and trustees. These assets are the discretionary resources of the enterprise, called by one observer, "the venture capital of higher education" (Kramer, 1980). He estimates that 12.7 percent of Educational and General expenditures among colleges nationwide were in this internal assets category during 1976-77 (p. 52).

2. Users of Institutional Services: Some resources, approximately 30 percent of the total revenues of colleges and universities in California, are secured directly from individuals and corporations who use institutional services. These funds support activities which, at least indirectly,

are designed to serve customers and respond to their opinions. Students want instruction to meet their needs and expectations; sports fans like winning teams; corporations insist that the terms of research contracts be fulfilled. In varying degrees, the institutions are directly accountable to these customers.

3. Tax Revenues: Some resources are provided by other people--taxpayers. This source was the single largest for California's colleges and universities in 1978-79, in terms of general institutional funding and unrestricted grants: 55.5 percent of their current fund revenues (National Center for Education Statistics, 1981a, p. 124). The vast majority of the funds, of course, were provided to public institutions. The relations of the postsecondary institutions with the providers of this source are more complex and distant than with the other two, partly because most interaction occurs through intermediaries such as public officials and central control agencies.

STATE POLICIES FOR FINANCING POSTSECONDARY EDUCATION

The State's policies are quite different across the spectrum of institutions. The 1960 Master Plan for Higher Education, the peculiar nature of educational costs, and the State's fiscal system have each shaped the content and evolution of finance policies.

The Master Plan for Higher Education

The Master Plan defined the structure, function, and goals of institutions so that they could collectively accommodate the throng of students who were expected to seek admission in the 1960s. Although the Master Plan was not explicitly a fiscal document, several of its tenets have become firm policies for financing.

First, its emphasis on access led the State to continue policies of no tuition and low fees in all public segments, and was translated into a policy of open admissions in the Community Colleges with virtually no student charges there (Academy for Educational Development, 1973, p. 26). In addition, the Community College districts were encouraged to distribute their offerings throughout the State: over 100 campuses exist today and courses are taught at more than 2,700 off-campus locations. Such policies enable the Community Colleges to enroll 1 of every 12 adult Californians, one of the highest participation rates in the nation.

Second, beyond the "open access" Community Colleges, the Master Plan defined certain eligibility pools--the top 12.5 percent of high school graduates would be eligible for the University and the highest third for the State University--and assured the opportunity for all Californians within these pools to attend some campus within the segment. Implicit in this invitation was the commitment, now a State policy, that the four-year segments would be funded for all eligible undergraduates, both freshmen and transfers from Community Colleges. Even in the stringent budgets of 1978-79 and 1981-82, the State budgeted enough funds to instruct all undergraduates projected to attend the University and the State University.

Third, the Master Plan established different functions among the public segments. The University would alone conduct State-supported research (it received $75 million from the State for organized research in 1980-81 and to allow sufficient time for additional research, its teaching loads were half that for faculty at the State University). The University would provide doctoral and professional degree education, while the State University would concentrate on baccalaureate and master's degree programs, and teacher education. The junior colleges were removed from under control of public school districts and were established as a segment of higher education. They were to serve primarily as institutions for transfer students with a large component devoted to vocational education and terminal degrees.

Fourth, the Master Plan encouraged the "greatest possible diversity," and recognized the "great contribution private colleges and universities have made and will continue to make to the state," in terms of this diversity (Master Plan Survey Team, 1960, p. xii). One fiscal policy to help achieve this goal was to expand student financial aid and allow some students the alternative of attending high tuition colleges. Recently, the State's Student Financial Aid Policy Study Group concluded that "the state should continue its policy of helping needy students meet the costs of attendance at private institutions," primarily because their diversity, ranging from religious studies to auto mechanics, enables students to pursue uniquely personal interests (1980, p. vii. For comments on the fiscal implications of the Master Plan, see Hitch, 1974.)

The Nature of Educational "Costs"

The "costs" of education have subtly influenced the State's policies, particularly because this term, when applied to colleges, has a different meaning than the one commonly associated with it. By the "cost" of a product, we generally mean the minimum dollar value of the resources needed to produce a finished item. We assume that technology and market prices converge to produce an objective measure called "cost."

In the world of higher education, "costs" do not have this objectivity. As economist Larry Leslie puts it, "The first premise in understanding costs in higher education is that in the aggregate, institutions generally spend whatever they receive. The second premise is that differences in cost will reflect, in considerable part, the relative success, over time, of each educational unit . . . in obtaining funds from all sources" (1980, p. 10). Similarly, Howard Bowen, among the most prominent scholars on the economics of higher education, points out that unit costs of operating colleges are set more by the money provided to them "than by the inherent technical requirements of conducting their work." He stresses "the fundamental fact that unit cost is determined by hard dollars of revenue and only indirectly and remotely by considerations of need, technology, efficiency, and market wages and prices" (1980, pp. 15, 19).

In order to explain this, Bowen offered his famous five "Laws of Higher Education Costs:"

1. The dominant goals of institutions are educational excellence, prestige, and influence;

2. In the quest of excellence, prestige, and influence, there is virtually no limit to the amount of money an institution could spend for seemingly fruitful educational ends;

3. Each institution raises all the money it can;

4. Each institution spends all it raises; and

5. The cumulative effect of the preceding four laws is toward ever increasing expenditure, even without inflation (pp. 19-20).

Given the self-fulfilling nature of costs in Bowen's "revenue theory," how are ambitions and expenditures controlled? "The duty of setting limits . . . falls, by default, upon those who provide the money, mostly legislators and students and their families," he asserts. Given this responsibility for setting limits, should the State prescribe detailed controls over appropriations? No, says Bowen, this would destructively interfere with the institutions. How, then, can the costs of higher education be held down? "When public agencies or governing boards wish to control costs," Bowen contends, "they need do only two things: first, to establish in broad general terms the basic scope and mission of the institutions for which they are responsible, and, second to set the total amount of money to be available to each institution each year" (pp. 20, 24). The "cost" of higher education will then be determined.

Bowen's theory is useful to understand the functioning of the Master Plan and certain State practices. The Master Plan has been a success, partly because it fulfilled Bowen's first axiom: it established the basic scope and mission of the segments. In addition, it identified certain activities which the State would not fund:

1. Ph.D. programs or professional schools outside the University of California;

2. Research in the State University or the Community Colleges;

3. Instruction for freshmen and sophomores within four-year public institutions who did not meet certain eligibility requirements;

4. Unnecessary duplication;

5. Continuing education or non-degree work at the University or the State University; and

6. All auxiliary services such as housing, food, and parking.

State budget practices fulfill Bowen's second axiom of limiting the total amount of money available to the institutions. For example, until 1975 the Community Colleges enjoyed a finance formula similar to the one for public schools: there was an open-ended commitment to fund all students who enrolled. Large annual increases from additional enrollments convinced Governor Edmund G. Brown Jr. to impose a 5 percent limit on additional State appropriations in 1975-76, a restriction which Community College leaders deplored as anathema to "open access." This limit was removed in 1976-77 in legislation which became moot in 1978 under the assault of Proposition 13. As a permanent part of Community College finance, the Legislature has subsequently decided to fix total State appropriations each year, based on some modest projections of enrollment growth. Re-emphasizing its policy against any commitment to fund all enrollments, the Legislature recently denied funds to relieve a 1980-81 deficit caused by an increase in the numbers of Community College students far beyond projections. In most cases, the State has adopted Bowen's second axiom of limiting funds, in the short term at least, for postsecondary institutions.

The State's Fiscal System

California's system has influenced postsecondary institutions far beyond its function as a conduit for funds. This has occurred because of incremental budget practices, a strong executive branch,

the large number of local entities, and a Constitutional prohibition against direct aid to private institutions.

First, the State budgets by incremental practices, despite the formality of presenting expenditures as program budgets which link appropriations to objectives (Balderston and Weathersby, 1972; California Coordinating Council for Higher Education, 1968). During normal times, most institutions expect to receive their prior year's appropriations plus funds for inflation and a few new programs. Despite initial hopes to the contrary, Aaron Wildavsky's definition of budgeting applies well to California: "an incremental process, proceeding from an historical base, guided by accepted notions of fair shares, in which decisions are fragmented, made in sequence by specialized bodies, and coordinated through repeated attacks on problems . . ." (1974, p. 62). Another student of State government, Jerry Evans, believes that those within the State's apparatus for managing the budget (the Department of Finance, the Legislative Analyst, and staffs of the fiscal committees) are not concerned so much with holding down expenditures as with "the objectives of legality, efficiency, policy conformance, prudent management, and maximum program accomplishment" (1976, p. 23). One of the disruptive aspects of Proposition 13 was not simply the trauma of fewer funds, but the temporary suspension of time-honored assumptions underlying the State's budget process.

Second, California has an executive branch with a powerful role in the budget process. The Governor's Department of Finance prepares the Budget after long hearings with agencies and institutions. The Governor then presents this omnibus budget in January of each year, and it winds its way through a Legislature increasingly active in budget matters until adopted in June and signed by the Governor who can veto or reduce any appropriations. All budgets funded through this process necessarily bear the distinct imprint of the executive branch.

Third, the State's funding of its 6,000 local entities (cities, counties, special districts, school districts, and community colleges) is decentralized and fragmented. Although 80 percent of the State's General Funds flow to these entities, the sheer number of them prevents rigorous State oversight or control. Additionally, the Constitution provides them some defense against incursions from Sacramento. As an example, the Legislature prohibited salary increases for local employees since none were granted to State workers in 1978-79. Citing "home rule" and "impairment of contracts," the California Supreme Court in Sonoma County Organization v. County of Sonoma (1979) declared this aspect of the State's "bail-out" unconstitutional. The Court's opinion presents a strong defense of the difference between State responsibilities and local autonomy, a tradition in California (Speich and Weiner, 1980, pp. 44-45).

Finally, the framers of California's Constitution feared that officials might be tempted to use the public purse for private gain. To prevent this, they adopted a clear prohibition against State grants to private entities:

> No money shall ever be appropriated or drawn from the State Treasury for the purpose or benefit of any corporation, association, asylum, hospital or any other institution not under the exclusive management and control of the State as a state institution . . . (Article XVI, Section 3).

As we shall see later, this has limited the State's direct support for independent colleges and universities.

How have these characteristics of State finance influenced postsecondary institutions? The impact differs for each segment, depending on whether the institutions are State, local, or private.

Impact on State Institutions: Both the University and the State University are considered State institutions, and are organized as "systems" of 9 and 19 campuses respectively under their single governing boards. Each system receives funds through a line item in the State's Budget Act which classifies its activities into a dozen major programs. Both are subject to the State's annual "budget cycle," which begins months before the next fiscal year each July 1. In October, the systems estimate their base budgets for the current year according to the Program Classification System, calculate baseline adjustments by negotiating inflation increases with the Department of Finance, and request program/budget enrichments, including request for cost-of-living adjustments in salaries. Customarily, the Governor reduces each segment's requested enrichments substantially, and then forwards the base budgets with adjustments and enrichments to the Legislature. Although most State funds are provided for instruction, which is based on enrollment formulas (fixed student/faculty ratios for both the University and the State University), support for other programs is substantial and receives much attention in the capitol. Their final budgets generally include a cost-of-living increase for salaries, which is then applied to a statewide salary schedule within each system. It is important to note that the budgets of these systems are not driven wholly by enrollments: an analysis in 1980 revealed that small changes in the number of full-time-equivalent students directly affected the funding of 53 percent of the University's State budget and 64 percent of the State University's budget through formula recalculations (California Postsecondary Education Commission, 1980a). Recent legislation allowing collective bargaining could influence this process and its results.

Impact on Local Institutions: As local institutions, the Community Colleges and the Adult Schools operated by high school and unified school districts have proceeded along different lines than the other public segments. As opposed to the standard Program Classification budgeting and the "budget cycle" of the four-year segments, the State's apportionments to the Community Colleges and the Adult Schools have been distributed through general grants based almost entirely on each district's Average Daily Attendance (ADA). After combining these apportionments with property tax revenues, local boards of trustees enjoy substantial latitude in allocating the funds among most activities, including expenditures for salaries which vary widely among the districts. Collective bargaining, now in its fourth year for the Community Colleges, has influenced these decisions on a district-by-district basis.

For several years, certain centralizing forces have been apparent. Chief among these forces was Proposition 13, which effectively ended the system of "local" finance for the Community Colleges by eliminating district control over property taxes. Before 1978, each district could determine its own general purpose tax rate, up to a certain maximum, along with several "permissive" taxes (primarily for community service and capital outlay). Proposition 13 limited any ad valorem tax on real property to 1 percent of its full cash value, specified that property taxes were to be collected county-wide, and made the Legislature responsible for distributing the revenues. Although districts retain wide latitude for expenditure of funds, the State now determines their total revenues, and the Community Colleges have few methods of raising additional, discretionary monies. Fully 75 percent of district revenues statewide now come from State General Funds, another legacy of property tax limitation. These changes have fostered much instability: the State has yet to agree on a permanent system of finance for these local institutions due to the dilemma of reconciling local authority over budgets with the State's need to control its appropriations.

Impact on Private Institutions: In general, privately controlled colleges in the West have not reached the size or prestige of those on the eastern seaboard, where public institutions grew slowly under the imposing leadership of the privates. To a great extent, California's independent institutions are an exception to this pattern of a modest private sector in the West. A few private institutions here have long histories--two extending back to Gold Rush days--and others rival the most prominent universities in the nation. The independent segment in California consists of many institutions, twice the number of campuses (including nonaccredited institutions) as the three public segments combined. Concentrated in Los Angeles and the Bay Area, they dominate the awarding of graduate and professional degrees in California, partly because of the Master Plan's restrictions on the State University. With some

exceptions, these colleges and universities are financially healthy (California Postsecondary Education Commission, 1978c, pp. 2-5).

Despite their respectable presence, independent institutions play a minor role in State finance compared to the public segments. This is so because of the tradition in western states of low tuition and a multitude of well-supported public colleges and universities and because of the prohibition in the California Constitution against appropriations for institutions "not under the exclusive management and control of the state."

As a counterpoint to these limitations, the State has been encouraged to view "all institutions of higher learning in California, public and nonpublic . . . as a total resource to the people of the State . . ." (Coordinating Council on Higher Education, 1972, p. 54; California Legislature, 1973, pp. 63-65). Independent institutions participate in State finance in two ways: contracts, and student financial aid.

Contracts and agreements between the State and independent institutions have assumed several forms. The California Education Facilities Authority, established in 1973 to provide independent institutions "an additional means by which to expand and enlarge and establish dormitory, academic and related facilities" (Education Code, Section 94100, Chapter 2, Article 1), has used the State's credit to guarantee revenue bonds for nine institutions. Separate agreements between the University of California, Drew Medical School, and the California College of Podiatric Medicine have extended State support, and these have not run afoul of the Constitution. Other contracts between the State and independent institutions, however, have been declared unconstitutional. These include the Grunsky "Aid to Medical Schools Program," and the Medical Students Contract Program. A recent Supreme Court Decision, Stanford University v. Kenneth Cory (1978) has severely limited the kinds of contracts which the State can negotiate with private institutions.

State student aid programs, by providing money to students, are not subject to such constitutional restraint. Established in 1955 partly to relieve the projected pressures on crowded public facilities, the State Scholarship Program (Cal Grant A) provided $214 million to 50,000 students in independent colleges during its first 20 years (California Postsecondary Education Commission, 1978, p. 24). In 1980-81, the California Student Aid Commission provided funds totaling almost $60 million to students in independent institutions (Odell and Thelin, 1980, p. 29. Statistics cover only member institutions of the Association of Independent California Colleges and Universities). Even though overcrowding in public institutions, one of the original justifications for such aid, is no

longer a problem, the State has continued to assist independent institutions to ensure opportunities for qualified California students to choose an institution outside the public realm.

PAST STATE FINANCING

The 1970s opened with Professor Earl Cheit of the University of California, Berkeley, announcing "the New Depression in Higher Education" (1971). He argued that State priorities were shifting, that campus turmoil was eroding public support, and that declining enrollments would be the rule. How accurate were these predictions for California? The combined evidence contradicts Cheit's prediction of a "Depression," at least through most of the decade (for an excellent summary of research at the turn of the decade on higher education finance, see Millett, 1972, pp. 19-26).

First, the State's General Fund expenditures for all government services--the primary source of funds for instruction and administration at the four-year public segments--quadrupled during the 1970s, as the first column of Table 2 shows. More important, expenditures doubled in terms of constant dollars adjusted for inflation (second column). And controlling for both inflation and population growth, per capita expenditures increased by 65.6 percent during the 1970s (third column)--impressive growth by any reasonable standard.

This considerable increase, however, went largely to cover inflation and local fiscal relief, the legacy of Proposition 13, which together accounted for three dollars of every four of additional State expenditures during the 1970s, as Table 3 indicates. New programs or increased levels of government services received only one dollar in six. Even so, the growth of General Fund expenditures suggests that State-supported programs continue to be relatively well financed.

The public segments appear to have shared in this growth. Figure 1 displays State General Fund support for their current operations during the 1970s. After two years without cost-of-living increases for salaries in 1970 and 1971, the four-year segments received substantial increases until 1978, when the State's retrenchment after Proposition 13 slowed the rate of the increases. The Figure indicates, however, that both the University and the State University recovered substantially in 1979-80, primarily because of a 14.5 percent cost-of-living increase for salaries.

State General Funds for the Community Colleges grew dramatically because of changes in State law. The increase in 1973-74 reflects

TABLE 2

THE GROWTH OF STATE GENERAL FUND EXPENDITURES 1970-71 TO 1980-81

Fiscal Year	Current Dollars	Constant Dollars[a]	Constant Dollars Per Capita[b]
1970-71	$4,853,900,000	$4,853,900,000	$241
1980-81	$20,474,800,000	$9,281,400,000	$399

a. Constant dollar amounts reflect current dollar amounts converted to a 1970-71 base using the Implicit Gross National Price Deflator for State and Local Purchases of Goods and Services.

b. Constant Dollars per capita reflects constant dollars adjusted for population growth in California.

Source: Office of the Legislative Analyst, 1980a, p. 3.

TABLE 3

SOURCES OF GROWTH OF STATE EXPENDITURES 1970-71 TO 1980-81

	Inflation	Population Growth[a]	Local Fiscal Relief	New Programs or Increased Levels of Service	Total
Amount	$5.8 Billion	$1.7 Billion	$5.5 Billion	$2.6 Billion	$15.6 Billion
Percent Increase	37.5%	10.6%	35.2%	16.7%	100.0%

a. This includes the extra funds needed to maintain the same level of per capita expenditures for additional population, in other words the effect of inflation on expenditures for new Californians.

Source: Office of the Legislative Analyst, 1980a, pp. 8-10.

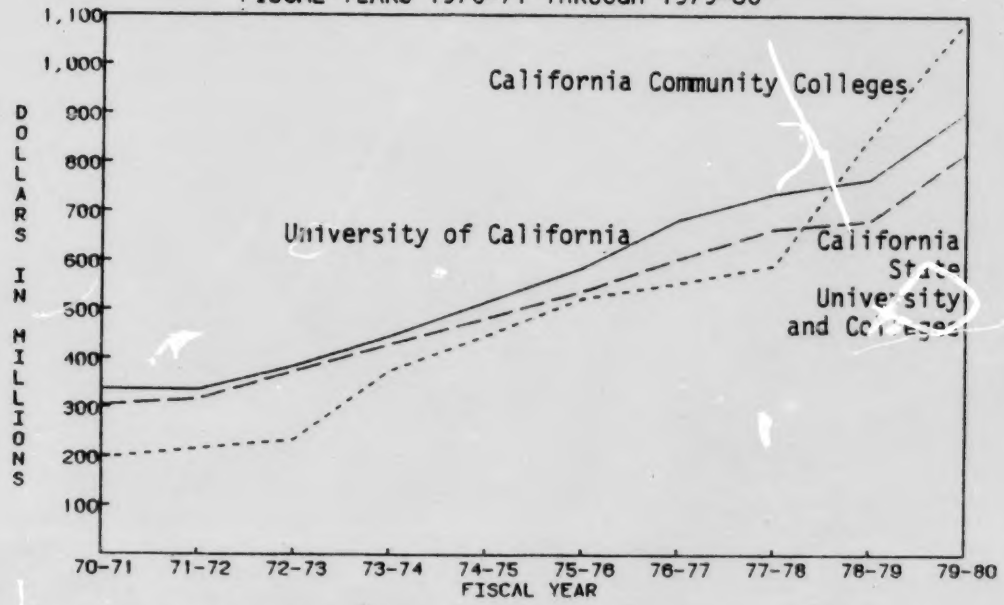
after Proposition 13 slowed the increases. The Figure indicates, however, that both the University and the State University recovered substantially in 1979-80, primarily because of a 14.5 percent cost-of-living increase for salaries.

State General Funds for the Community Colleges grew dramatically because of changes in State law. The increase in 1973-74 reflects the policy of Senate Bill 6 (1973), to provide local property tax relief. The large increase in State funds after 1978 came as a "bail-out," which replaced property tax revenues lost under Proposition 13 with funds from the State's budget surplus. Although General Fund support increased for the Community Colleges, that segment fell behind the others in terms of total revenue increases.

What do these patterns in the growth of State support mean when considered in terms of inflation? First, regarding the percentage increase in total dollars, the growth in State support for the three public segments during the 1970s was remarkably similar (Table 4). Second, in terms of overall State support, no segment appears to have fallen behind the rate of inflation, even considering its enrollment growth, due to increases provided prior to 1978, when segmental resources were growing and inflation was relatively low.

FIGURE 1

STATE GENERAL FUND SUPPORT FOR CURRENT OPERATIONS FOR THE UNIVERSITY OF CALIFORNIA, THE CALIFORNIA STATE UNIVERSITY AND COLLEGES, AND THE CALIFORNIA COMMUNITY COLLEGES, FISCAL YEARS 1970-71 THROUGH 1979-80



Source: California Postsecondary Education Commission, 1981b, p. 22.

Because the State transferred so much of its General Funds to replace property tax revenues lost under Proposition 13, it is necessary to analyze both State expenditures and property taxes before reaching conclusions about the State's fiscal circumstances during the 1970s. With this perspective, a much different picture emerges.

In terms of total revenues available to the State of California and its local entities from non-federal tax sources during the 1970s per $1,000 personal income (the standard measure for comparing revenues among states in order to rid the comparisons of the effects of population change and inflation), Proposition 13 and other tax relief had a drastic effect on public finance in California. For example, as Table 5 shows, California enjoyed high tax revenues compared to the national average in 1977-78 when it ranked fourth among the 50 states in terms of tax revenues per $1,000 personal income. But it fell to twenty-second the year after Proposition 13, and climbed back to seventeenth in 1979-80. From another perspective, California's tax revenues were 27 percent above the national norm in 1977-78 and 1 percent above in 1978-79. On the other hand, California's expenditures per $1,000 personal income fell from $211 in 1977-78 to $189 in 1978-79, or by 11 percent. In relation to the national norm, California's expenditures were 10 percent above in 1977-78 and 1 percent below thereafter (Jamison, 1981).

TABLE 4

CHANGES IN ENROLLMENTS AND STATE GENERAL FUND SUPPORT COMPARED TO SELECTED MEASURES OF INFLATION

Segment	Full-Time Equivalent Student Enrollment 1970-71 to 1979-80	State General Funds 1970-71 to 1979-80	HEPI	PCEI	CPI
Univ. of California	+21.3%	+ 169%			
California State Univ. & Colleges	+14.1%	+ 169%	+79%	+77%	+80%
California Community Colleges	+29.3%	+ 436%[a] +(163%)[b]			

a. Actual percentage increase in State General Funds for apportionments, EOPS, and services for disabled students.

b. Percentage increase in State General Funds plus property tax revenues.

Source: California Postsecondary Education Commission, 1981b, p. 23.

No doubt, this is a sharp decline in real revenues and expenditures. Within this decline, how did the institutions of higher education fare? Table 6 shows expenditures for various State services, expressed as a percentage of national norms from 1975 through 1979. It is evident that expenditures for higher education per $1,000 of personal income fell substantially--by 30 percent in 1978-79--when compared to the national average. Further, Table 6 indicates that expenditures for higher education, while well favored compared to the relationship of most other government services to their national norms, showed the sharpest decline of any service in 1978-79 compared to national norms for the funding of each service. That

TABLE 5

TOTAL STATE AND LOCAL TAX REVENUES
1970-71 TO 1979-80

Fiscal Year	Total State & Local Tax Revenues[a]	Tax Revenues Per Capita	Tax Revenues per $1,000 Personal Income[b]	Tax Revenues Per $1,000 Personal Income, Compared to U.S. Average (U.S.=100)
1970-71	$12,199,000,000	$ 601.71	$137.76	117.3%
1971-72	14,063,800,000	688.86	149.29	119.4
1972-73	15,221,600,000	737.48	148.45	116.8
1973-74	15,936,300,000	763.38	141.48	115.0
1974-75	18,401,600,000	868.08	146.53	121.7
1975-76	20,749,500,000	964.11	148.76	121.3
1976-77	23,842,900,000	1,089.36	153.25	122.8
1977-78	27,365,200,000	1,226.37	156.78	127.2
		Proposition 13, June 6, 1978		
1978-79	24,007,300,000	1,057.87	120.89	100.9
1979-80	(est.)27,292,000,000	(est.) 1,181.98	119.69	103.9

a. Total tax collections of all state and local entities in California, as tabulated by the Bureau of the Census, U.S. Department of Commerce. Does not include fees, charges, fines, interest earnings, or revenue sharing or other funds received from the federal government.

b. Total income received by all residents of California, as estimated by the Bureau of Economic Analysis, U.S. Department of Commerce. Personal Income includes wages and salaries, other labor income, dividends, interest, net income from unincorporated businesses, net rental income, government and business transfer payments to individuals. Figures show calendar years ending in the middle of each fiscal year.

Source: Jamison, 1981.

year, California ranked thirty-fourth among the states in expenditures for higher education per $1,000 personal income, compared to being ninth in 1970 (Jamison, 1981; Academy for Educational Development, 1973, p. 90). Public schools in California (Kindergarten through 12th grade) enjoyed a less favored position than higher education before Proposition 13. In terms of revenues per pupil, they ranked 20th in the nation and 22nd in expenditures per pupil. Thus, the public schools did not have as far to fall in comparative terms as did the institutions of higher education. (See Division of Agricultural Sciences, 1980, pp. 2-3.)

Does this mean that, during the crisis, State government assigned a lower priority to higher education than to other services? This appears to be the case, but only from the perspective of comparisons to national norms. From another perspective, Figure 2 shows the percentage of State and local funds which the segments received during the 1970s as a percentage of total State General Fund expenditures plus total property tax revenues. Except for adjustments

TABLE 6

CALIFORNIA'S EXPENDITURE OF STATE AND LOCAL GOVERNMENT FOR VARIOUS ACTIVITIES EXPRESSED AS A PERCENTAGE OF THE U.S. AVERAGE EXPENDITURE PER $1,000 PERSONAL INCOME FOR THOSE ACTIVITIES 1975-76 TO 1978-79

Fiscal Year	Local Schools	Institutions of Higher Education[a]	Public Welfare	Health & Hospitals	Highways	Police and Fire	Financial Admin. & General Control[b]
1975-76	103.8%	125.5%	136.4%	99.7%	59.8%	132.1%	135.3%
1976-77	101.5%	128.1%	138.0%	91.1%	54.6%	129.4%	131.5%
1977-78	103.7%	135.1%	144.8%	96.6%	59.9%	127.7%	130.7%
			Proposition 13, June 6, 1978				
1978-79	92.3%	103.5%	135.7%	95.6%	51.0%	120.5%	114.0%

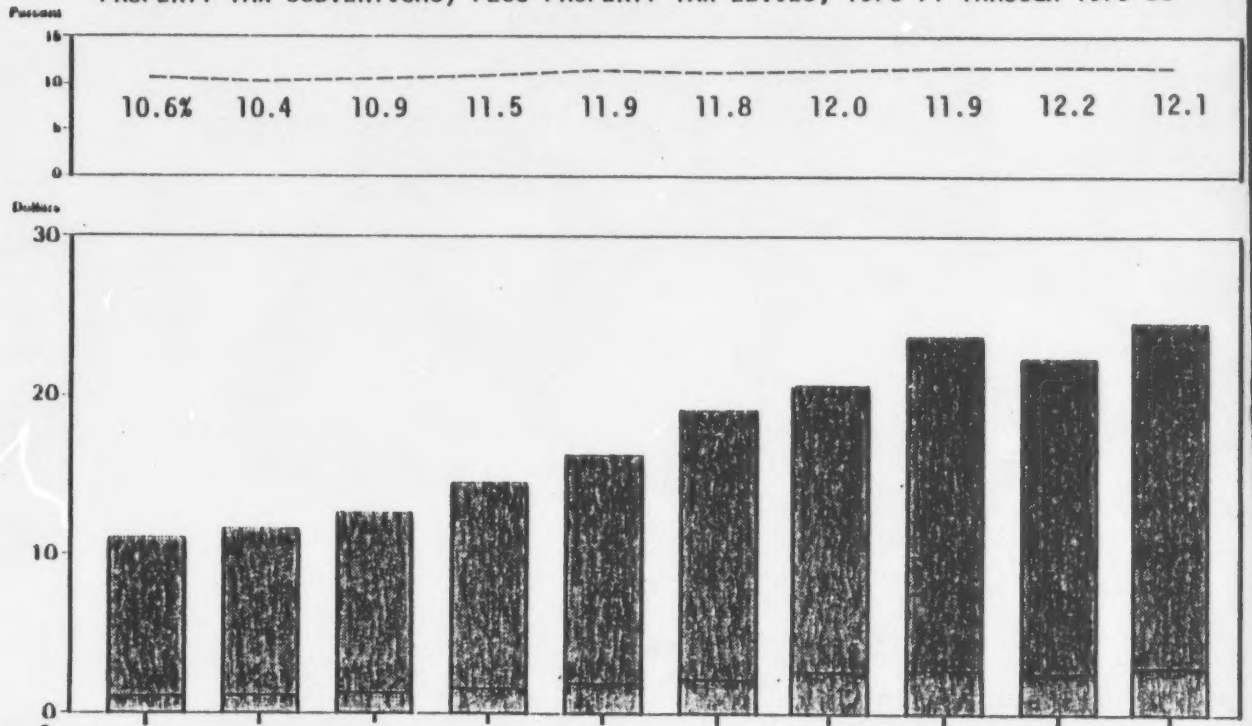
a. Publicly-operated universities, colleges, junior colleges, and other schools beyond the high school level.

b. "General control" covers legislative bodies, administration of justice (including the courts), and governmental chief executives and central staff agencies, other than thos concerned primarily with finances.

Source: Jamison, 1981.

FIGURE 2

SUPPORT FOR CURRENT OPERATIONS OF THE PUBLIC SEGMENTS IN MILLIONS OF DOLLARS AND EXPRESSED AS A PERCENTAGE OF TOTAL STATE GENERAL FUND EXPENDITURES (INCLUDING PROPERTY TAX SUBVENTIONS) PLUS PROPERTY TAX LEVIES, 1970-71 THROUGH 1979-80



Fiscal Year[a]	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
State Dollars[b]	$10,576	11,399	12,435	13,944	15,721	17,797	19,835	22,224	21,287	24,195
Segment Dollars[b]	$1,123	1,182	1,351	1,608	1,865	2,102	2,385	2,653	2,603	2,930

a. July 1 - June 30
b. In millions
Source: California Governor's Budgets and California Legislative Analyst's Reports

early in the 1970s caused by a salary freeze and State efforts to provide property tax relief, the segments as a whole received a remarkably uniform proportion of State and local resources throughout the decade. It also appears that the segments received a slightly larger proportion of State General Funds and property tax revenues in 1978-79, following the rearrangements of Proposition 13.

These two perspectives--one comparing the institutions with those in other states and one comparing them to other State services--suggest that public higher education in California was well supported before 1978-79, in comparison to institutions in other states. As part of the general retrenchment after Proposition 13, however, California's institutions suffered a substantial decline in relation to their counterparts elsewhere. Nevertheless, they did not lose their traditional share of State and local revenues in the competition among services within California.

THE FUTURE OF STATE FINANCING FOR HIGHER EDUCATION

Apparently, California did not reduce proportional support for higher education in recent years, compared to other State services, although the "Tax Revolt" lowered its level of support compared to other states. In view of this, is it reasonable to expect this trend to continue?

The general support levels for higher education by the State are a function of the State's ability and willingness, through the political process, to support the institutions of higher education. Therefore, it is appropriate to ask, will the State have the ability, and will it be willing, to continue support of higher education at past levels?

Ability of the State to Continue Support

The "Tax Revolt" in California embraced more than Proposition 13. From 1975-76 through 1981-82, nearly $44 billion will have been reduced from State and local tax payments because of a variety of measures. Table 7 displays this tax relief to the public.

The continuing effect of taxpayer relief on State revenues is uncertain, but is greatly influenced by the strength of California's economy. In this regard, most economists are predicting substantial employment growth and a recovery of the housing industry through 1983. Perhaps the most notable among the economic oracles for California, the UCLA Business Forecast, predicts that California's

Gross State Product will increase by 14.8 percent and 15.1 percent for 1982 and 1983 respectively, and that personal income will substantially exceed a falling rate of inflation during those years (Kimball and Jaquette, 1981, pp. 110-113). Although unlikely to be as impressive as California's boom during the mid-seventies, the economy should sustain a growth in State General Fund revenues in excess of 10 percent for the next few years.

Of course, experts disagree over the actual magnitude of revenues, as Table 8 indicates. However, even the most pessimistic alternative before the start of the fiscal year called the "slow growth" variation by the Commission on State Finance, projects a 10.9 percent General Fund increase for revenues in 1981-82 (Commission on State Finance, 1981, p. 22). Recent estimates, however, suggest lower increases.

TABLE 7

TOTAL TAX RELIEF PROVIDED BETWEEN FISCAL YEARS 1975-76 AND 1981-82

Tax	Total Amount of Tax Relief 1975-76 to 1981-82
PROPERTY TAX RELIEF	
Proposition 13 (constitutional)	$28,000,000,000
Homeowner's Exemption from Property Taxes (constitutional and statutory)	3,610,000,000
Business Inventory Exemption (statutory)	2,650,000,000
Open Space (Williamson Act, statutory)	110,000,000
Total, Property Tax Relief	$34,370,000,000
RELIEF FROM STATE TAXES	
Personal Income Tax	
Indexing of Income Tax Brackets (statutory)	$ 5,058,000,000
Other (statutory, one-time payment in 1978-79)	1,055,000,000
Renter's Credit (statutory)	1,760,000,000
Senior Citizens Credit (statutory)	510,000,000
Business Taxes (statutory)	290,000,000
Inheritance and Gift Taxes (statutory)	145,000,000
Energy Credits	165,000,000
Other	550,000,000
Total, Relief from State Taxes	$ 9,533,000,000
TOTAL, TAXPAYER RELIEF	$43,903,000,000

Source: 1981-82 Governor's Budget, State of California, p. A-51.

These assumptions, of course, presume that the State's ability to raise and spend revenues will not be restricted by voter initiatives. We should consider two developments along these lines: Proposition 4, which is a part of the Constitution, and possible measures in the future, which could become part.

Proposition 4: In November 1979, California voters overwhelmingly approved Proposition 4, the "Spirit of 13" initiative, which placed three provisions into California's Constitution:

1. A limit on the year-to-year growth in tax supported appropriations of the State and individual local governments and school districts;

TABLE 8

ACTUAL AND PROJECTED STATE GENERAL FUND REVENUES
1977-78 THROUGH 1982-83

Fiscal Year	Totals, General Fund Revenues & Transfers	Percent Change
1977-78	$13,695,000,000[a]	
1978-79	15,219,000,000[a]	+11.1%
1979-80	17,985,000,000[a]	+18.2%
1980-81 (est.)	18,934,000,000[b]	+ 5.2%
1981-82 Legislative Analyst (February, 1981)	21,020,000,000[a]	+11.2%
Department of Finance (May, 1981)	21,582,000,000[b]	+14.0%
Commission on State Finance (June, 1981)	21,465,000,000[b]	+13.4%
1982-83 Commission on State Finance (June, 1981)	24,779,000,000[b]	+15.4%

a. Office of the Legislative Analyst, 1981a, p. A-19.

b. Commission on State Finance, 1981, p. 21.

2. A prohibition against the State and local governments retaining surplus funds; and

3. A requirement for the State to reimburse local entities for the cost of certain State mandates.

In 1980-81, the Department of Finance estimates that the State is $810 million below its appropriations limit and that it will fall $1.79 billion below the limit in 1981-82. The Legislative Analyst concludes "that the State's appropriation limit will not be a fiscal constraint in 1981-82, and, barring the enactment of a general tax increase, it will probably not be a constraint in the foreseeable future" (Office of the Legislative Analyst, 1981b, pp. 4, 14).

Possible Future Measures to Limit Government: The opinion prevailed after Proposition 13 that it was the first of many such efforts and would cripple governments throughout the nation. Evidence now suggests otherwise; the "Tax Revolt" appears more moderate and selective. In order to test the strength of the revolt, the Education Commission of the States analyzed voter referenda in four states. The Commission concluded that the revolt was not a "monolithic movement that is sweeping the country." Rather, voters appeared to perceive the differences in the tax and expenditure limitations on the ballot and acted with considerable caution (Education Commission of the States, 1980, p. 57; Kintzer, 1980, p. 3). A poll conducted by NBC and the Associated Press in May 1981, showed that only 33 percent of Westerners polled believed their property taxes were too high, compared to 74 percent in 1978. Even more conclusive are the results from the November 1980 elections:

- Of the 10 "Tax Revolt" propositions (7 major property tax reductions and 3 expenditure limitations), only two passed (Massachusetts' Proposition 2-1/2, and Montana's expenditure limit); and

- Of the 20 propositions with a minor impact on revenues, 11 passed (California Tax Reform Association, 1980, p. 1).

Although it would be naive and premature to announce the end of the Tax Revolt (two propositions have qualified for the ballot in June 1982, which would abolish the State's Inheritance Tax and reduce revenues by $500 million annually), radical measures to restrict the State's fiscal ability appear unlikely to be adopted.

(The Rand Corporation recently summarized the results of various tax and expenditure limitations as follows: increased reliance on user fees; some cutbacks in services, especially redistributive

ones; some reduction in public employment; substantially reduced opportunities for minority employment; erosion of local control; and increased targeting of appropriated funds. See Rand Corporation, 1980.)

Willingness of the State to Continue Support

Predicting the willingness of the State to fund higher education at past levels requires more subjective speculation than assessing the State's ability. In general, three factors influence this willingness:

1. Statutory and constitutional commitments to fund other State activities, such as retirement systems, which will likely enjoy some priority over higher education;

2. The public's image of the institutions as relayed to State officials; and

3. The political acumen and influence of those representing higher education compared to those representing other agencies and groups.

During the 1970s, it appears that the institutions showed considerable strength in each of these areas.

Perhaps public opinion is the most crucial factor for the long run. Although polls reveal sharply different attitudes according to the questions asked, most show that higher education (especially when separated from the public schools) continues to enjoy substantial public support. The ABC News-Harris Survey in 1979 indicated that only TV news enjoyed a higher confidence rating than higher education, among the eleven institutions mentioned. Closer to home, the Field poll recently documented extensive knowledge and interest in the California Community Colleges. The major reservations in public opinion appear to be that all institutions of higher education offer too much remedial work and fail to provide basic skills. (See Carnegie Council on Policy Studies in Higher Education, 1980, p. 23. See also National Center for Education Statistics, 1981b, pp. 43-45, and California Community Colleges, 1979b.)

On the whole, though, some doubt about the ability of higher education to secure its past share appears in order. First, unlike those citizens served by many State agencies, numerous students can afford to pay more for their education and thus relieve the taxpayer to some extent. This opinion was apparent in the Legislature's decision to impose an "unallocated" reduction in the 1981-82 budgets of the University and the State University, with the expectation of their increasing fees.

Second, the final budgets for all three public segments are not statutory; the increases are negotiated annually in the Budget Bill. So, it is easier strategically to change these amounts than to amend a statutory cost-of-living adjustment or to postpone obligations such as retirement funding.

Third, almost 80 percent of the budgets for the four-year segments is represented by salaries. Each year, their single largest increase appears as a line item for salary cost-of-living adjustments. These tend to be decided late in the budget process when revenues and prior commitments are known. Salary increases are therefore used "to balance the budget," and agencies which have a high proportion of their budgets represented by salaries tend to suffer during years of stringency. This practice might change with collective bargaining.

Finally, there is concern in some political circles that higher education has been enriched while the public schools have been starved. "Overall, I believe that we need to recognize that higher education's success in the eighties will depend upon the success of K-12 in preparing students for matriculation," the Director of the Department of Finance has announced. "This will involve a willingness to redirect higher education funding to K-12 . . . ." (Graves, 1980, p. 13).

ISSUES IN POSTSECONDARY FINANCE

Turning from this background about State policies and current fiscal realities to issues in financing postsecondary institutions during the 1980s, there appear to be five areas which will draw most of the State's attention: (1) formulas and funding for the public segments, (2) accountability, (3) sources of revenue, (4) policies for student charges and financial aid, and (5) the role of the State in assisting private institutions. The following paragraphs seek generally to describe the problems rather than prescribe solutions to them.

Formulas and Funding for the Public Segments

A State-level formula gives formal expression to the way a State funds its institutions of postsecondary education. It is a mathematical means of relating the workload of a public institution to its State appropriation. According to Kent Halstead of the National Institute of Education, a formula is "basically a means of projecting present ratios and unit costs to estimate future budgetary requirements" (1979, p. 664). Functionally, statewide formulas are

the bridge between Cost and Workload Analysis (historical information which determines relationships between programs and expenditures) and the State Budget (the document which contains the approved level of expenditure for institutions).

Funding Formulas for the University of California: Excluding the health sciences, only two portions of the University of California's budget are adjusted according to a State formula under this definition: (1) the instruction and departmental research program; and (2) the library reference circulation staff within the Academic Support program. The rest of the State-supported budget consists of items which are "base" funded with increases and enrichments negotiated between the University and the State.

Funding Formulas for the State University: These budgetary formulas are much more complex, indeed some authors have characterized the system as among the most "formula-laden" in the nation (Meisinger, 1976). In general, a basic component (general formula) is established in each program classification for all campuses, with step increases (standard allowances) augmenting this base as the size of the institution increases. Except for physical plant operations, all programs in the State University's classification system are based on enrollments, either on FTE calculations, headcount, or variations of both. It is important to understand, though, that some allotments within the budget are far more sensitive to small changes in enrollment, such as the formula for faculty positions, than are others.

Funding Formulas for the Community Colleges: The formula to support the California Community Colleges is closer to the mode of public school finance, with a general apportionment per unit of attendance being the prime component. The State does provide categorical aid which is not part of the general formula, primarily for the Extended Opportunity Programs and Services and services for students with disabilities.

Formulas in California and elsewhere serve several purposes: they lessen political wrangling among the institutions; they assure some consistency and objectivity; they provide State officials with a few understandable measures; they represent a compromise between State control over line-item budgeting and institutional autonomy. Still, the formulas suffer from some serious defects, seven of which will be increasingly apparent in the 1980s:

1. Funding Enrollment Change by the Average Cost of Instruction: Unlike many states, California does not add or subtract revenues based on the total cost to the institution per student (the cost of all campus activities divided by full-time-equivalent

students). Rather, the State's policy for all three public segments is to fund at the marginal (or incremental) rate: the cost of providing instruction only to the additional student. Even with this approach, there are problems with cost "averaging" for instruction. Recently, many students have moved into vocational, occupational, and professional programs where instructional expenses to the institution are greater than in the humanities or social sciences. Although the State does provide an adjustment based on these discipline considerations for the State University, it does not do so (at their request) for the University or for the Community Colleges. Over the years, substantial changes in enrollment or shifts in student programs can seriously undermine the original basis for the instructional formulas.

2. Formulas Based Only on Inputs Rather Than on Performance: Partly because of academic convention and partly because the alternatives seemed so subjective, funding formulas have been based on how much is done (credits and seat time), not on how well it is done (changes in knowledge, enhanced personal and career development). The typical approach in financing higher education has been for the State to provide the environments and tools for learning with scant emphasis on results--at least not within the regular budget. Although the State has established grants for innovative projects in all three segments, the fundamental assumption in the regular formulas is that funding and quality assessment should be distinct: the State should provide adequate funds while the institutions themselves, through administrative rigor and faculty review, should maintain high levels of performance. Although performance funding has many fundamental and practical problems, as shown in Tennessee's cumbersome experiment (Tennessee Higher Education Commission, 1979), the idea of providing some funds in the budget for results remains hauntingly attractive, especially to those sensitive to the political demand for accountability (for a criticism of the California system, see Balderston, 1974, p. 158).

3. Proliferation of Categorical Programs: State officals almost everywhere are increasingly attracted to categoricals--funds which are provided specifically for certain programs rather than for general support. This is the clear trend in areas such as remedial instruction, innovation, affirmative action, and services for disabled students. This trend is understandable in that officials want to protect and encourage programs of particular interest to the State, especially during times of fiscal stringency. Nevertheless, categorical programs, when they become excessive, can cause problems: they reduce institutional flexibility; they tend to grow much faster than general

funds (this is particularly true for categorical programs in the Community Colleges); they can become protected entities, unresponsive to changing circumstances and priorities; and they tend to consume legislative time in details, and detract from discussions of general policy or educational effectiveness overall.

4. Collective Bargaining: California's experience with bargaining in the Community Colleges does not indicate much effect on the State's formulas or its appropriations, except for the Sonoma decision which prohibited a salary freeze. Within the four-year segments, which are subject to State-level budget review, collective bargaining could alter parts of the formulas, such as student/faculty ratios and workload, since these are subjects for bargaining. If either segment adopts collective bargaining, the formulas will likely be targets for revision.

5. Socially Imposed Costs: All institutions of postsecondary education experience cost increases through informal social pressure, governmental mandate, or litigation. The most important of these costs are as follows:

   - Costs for Personal Security: Unemployment protection, illness, accident, old age, premature death, and protection of privacy;
   - Costs for Work Standards: Minimum wages, hours, working conditions, and collective bargaining;
   - Costs for Personal Opportunity: Access for all persons without discrimination on the basis of sex, race, religion, or physical handicap;
   - Costs for Participation and Due Process: Mandates by government which call for open, equitable decisions with individuals participating in decisions that affect them;
   - Costs for Public Information; and
   - Costs for Environmental Protection (Bowen, 1980, p. 77).

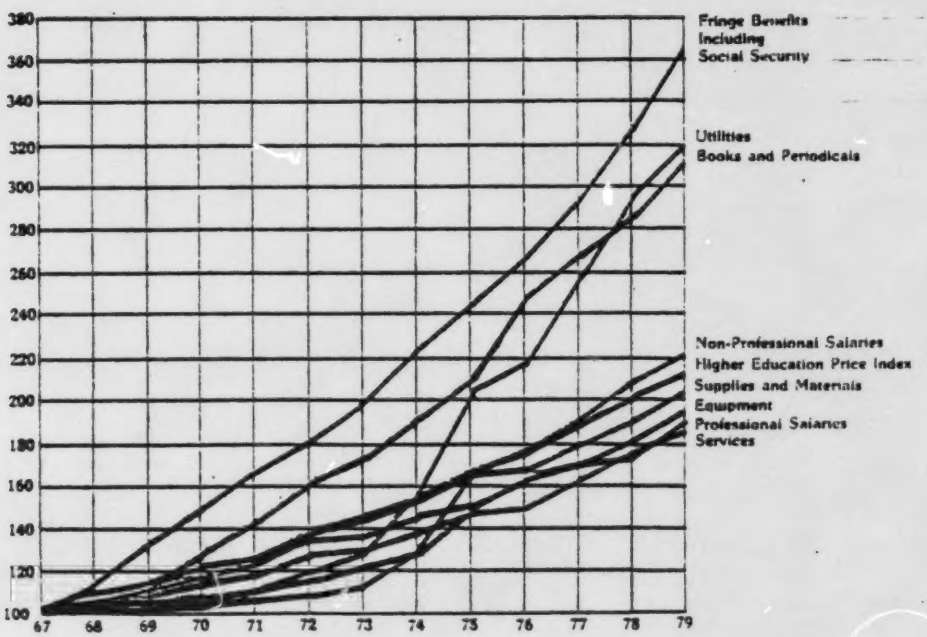
Although few educators dissent formally from the objectives within these categories, many complain about clumsy administration, arbitrariness, and bureaucratic inefficiency. The most frequent criticism, however, is that some of these costs, estimated by Howard Bowen to be 7 or 8 percent of total current expenditures, are mandated but not funded by government. Recently, both the State University and the Community Colleges were refused special funding to support monitors for affirmative action in order to fulfill legal mandates.

6. The Difficulty of Making Formulas Sensitive to Differential Cost Increases: As shown in Figure 3, costs for the various goods and services purchased by institutions have grown at different rates during the 1970s. In order to be realistic, the formulas must have differential increases for the various items purchased. It is difficult, however, for the State's formulas to reflect this differential growth annually. Often, there are serious arguments even over the proper way to deter-

FIGURE 3

TRENDS IN HIGHER EDUCATION COST COMPONENTS

1967 = 100



Source: Reprint from Carol Frances, 1980, p. 35.

mine increases, the best example being the annual debate on salary adjustments. On the one side, the State through the Postsecondary Education Commission has established a set of comparison institutions for the University and the State University with regard to parity in faculty salaries. On the other side, the segments argue that some cost of living index, notably the Consumer Price Index, is the proper comparison. The State's policy in this regard is equivocal, at best. Faculty have received the same increases as other State employees for the past several years, regardless of their comparison institutions or the cost of living.

7. Deferred Maintenance and Capital Replacement: During the years of enrollment growth and rapid construction, concern about the aging of buildings and equipment drew little attention. Now, capital maintenance is among the most important aspects of finance. Several economists have emphasized the growing linkage between current operations and capital expenditures: "Colleges and universities overall tend to make inadequate provision for 'renewal and replacement' of capital," writes one Vice President for Finance. "As a matter of fact, it can be shown easily that they 'balance their budgets' at the expense of capital 'renewal and replacement'" (Jenny, 1980, p. 3).

   As a matter of policy, the State provides funds for equipment replacement and deferred maintenance to the University ($15 million in 1980-81) and the State University ($6 million in 1980-81). There are no funds provided specifically to the Community Colleges for this purpose; most districts set aside funds from their general revenues. Despite the State's policy, several concerns remain:

   Inadequate Funds: The funds may not be adequate. One author suggests that a "capital consumption rate" of 2 percent in operations funds is necessary (Jenny, 1980, p. 3). Such a policy would require approximately $21 million for the University and $19 million for the State University.

   Ease of Elimination: Deferred maintenance funds are usually among the first casualties during times of fiscal crisis: the University's amount for equipment replacement in the Governor's Budget was cut in half after Proposition 13; and

   Accessibility for Other Uses: The funds, when not earmarked for this purpose by the State, can become a subject for collective bargaining and can be used for purposes other than capital outlay. This is particularly true for the Community Colleges.

Increasing Accountability

The Carnegie Council portrays higher education, including public institutions, as once a largely self-governing and autonomous part of American society that increasingly "has become subject to many forms of regulation and has taken on the status of a regulated industry" (1980, p. 14). Indeed, the use of formulas for higher education bolstered this trend toward more accountability in State budgeting by imposing different management practices, formal cost accounting, and complex budget procedures. As a whole, it appears to many educators that the priority of, and respect for, higher education has declined and that demands for more accountability are pernicious expressions of this sentiment.

An alternative view is that the apparent trend toward increased accountability only represents a desire to impose ordinary practices of State budgeting on institutions of higher education, and is not evidence of hostility to the enterprise itself. Along these lines, many State officials throughout the nation are questioning the perquisites of higher education: tenure, sabbaticals, and fiscal autonomy. They are doing so partly because of what Martin Kramer calls "the professionalization of the allocative function," spawned by the new breed of public administration professionals. For them, "the meat of public administration is competition for resources, and competition, to be rational, must be in terms of characteristics that institutions share" (Kramer, 1980, p. 36). These professionals and like-minded officials believe that the appropriations of government should be determined through a unified process where all programs are arrayed together and priorities are established among them. There should be no protected areas or self-serving concepts about "fair shares." As Kramer describes their attitude, "the wider the scope of trade-off choices--that is the more programs and priorities that are considered in this process--the better the outcome is expected to be" (ibid). In this arena, the celebration of higher education's prerogatives, according to this viewpoint, are just another banal form of special pleading.

Throughout the nation, two concrete examples of increased fiscal accountability for educational institutions are most apparent.

Emphasis on Cost Data, Generally by Discipline: Among all the states, California has been one of the slowest to follow this course. In 1979, however, the Legislative Analyst recommended that the Postsecondary Education Commission "develop comparable costs of (a) instruction, by major disciplines and level of instruction, and (b) support services in the three public segments . . . ." The Analyst argued that comparable cost and staffing factors are basic to "any attempt to interrelate the segments . . . . Much additional information is necessary to assist the Legislature in evaluating

the allocation of State support between the three segments of higher education, the distribution of support within each segment, and the merit of requests for program increases" (Office of the Legislative Analyst, 1979, pp. 1011-1012. From an institutional perspective, see National Association of College and University Business Officers, 1980.) The Commission staff then prepared a Feasibility Study of Alternative Methods for determining the cost of instruction which presented four variations, each of increasing sophistication and expense. The report listed two findings which are particularly relevant to using cost accounting as a means of increasing accountability:

> Functional differences--those attributable to the "personality" of an individual campus--continue to present a major obstacle to cost comparability among campuses. In California, many of these differences were created by the 1960 Master Plan, which established specific differentiation of functions among the public segments. No set of formulas, procedures, or guidelines have been, or likely will be developed in the near future to deal with functional differences between and among institutions.
>
> . . .
>
> Cost-of-instruction data can be an exceedingly valuable, but potentially debilitating, commodity. The possibility for misuse of cost data, and particularly cost-of-instruction data in the forms described in this report, is significant (California Postsecondary Education Commission, 1980b, pp. 62-63).

The Legislature and Governor have received the Commission's report, but have not yet acted on its recommendations.

Demand for Instant and Comparable Information: In California, this effort has assumed the form of the California Fiscal Information System (CFIS). Mandated in 1978, CFIS is the State's vehicle for developing annual budgets, accounting for expenditures, and enhancing "fiscal decision-making in the establishment of budgets for all state activities" by creating measures for comparing costs among all State agencies.

Among other things, the law requires that State agencies and institutions, through CFIS:

- Develop a system permitting immediate comparisons of budgeted expenditures, actual expenditures and encumbrances;

- Use an accounting structure that facilitates the linkage of actual expenditures to specific goals and objectives; and

- Use a coding structure (presumably within the accounting structure) that will permit "identical activities being performed by different entities to be identified and compared" (Government Code, Sections 11409 and 13300).

The statute suggests that all State agencies and institutions are subject to CFIS with the exception of the University of California. Currently, however, only the State University has converted its reporting to the CFIS format.

People within the postsecondary institutions have naturally been hostile toward these trends. Generally, they subscribe to three views:

- The quality and effectiveness of education is seriously jeopardized by fiscal dissection and regimentation;

- The results of education cannot be measured as objectively as those within other government agencies, and so the costs cannot be conclusively linked to benefits; and

- The traditions of higher education--tenure, a departmental budget base, shared responsibility for resource decisions--are central to the institutions and cannot be dismantled without thoroughly reorganizing the institutions (Rourke and Brooks, 1966, pp. 75-76).

The struggle between public administration professionals and the advocates of institutional autonomy will continue during the 1980s, with neither side likely to prevail entirely. Considering this debate, David Adamany, in a recent study of State regulation in California, thoughtfully summarized the challenge of accountability:

> A strong case can be made that intensive state regulation of universities is counter-productive: it costs money, stifles creativity and diversity, defeats effective administration, and, at its extremes, intrudes on academic freedom . . . .
>
> But the other elements necessary to substitute a policy of deregulation for one of ever advancing regulation are only now being developed. Mission statements and evaluation techniques must be devised and adopted that will create sufficient official and public confidence to sustain pleas for a special relationship between universities and state governments, turning on delegated authority and program accountability (1978, pp. 190-191).

Particularly important is Adamany's call for sharper mission statements and evaluation techniques, presumably to be developed by the institutions themselves, which can justify a special relationship between the State and academic institutions. However, recent efforts by the University of California and the California Community Colleges have fallen rather short of this goal--the University's because of resistance within the institution to limiting campus missions, and the Community Colleges' because of State-level suspicions that the proposed procedures would make the districts less accountable to the California taxpayers as a whole (University of California, 1979; Board of Governors, California Community Colleges, 1979).

The Need to Diversify Sources of Revenue

Those who worry professionally about the welfare of postsecondary education have lamented that two sources of revenue--student charges and State appropriations--are coming to dominate institutional support (see, for example, Carnegie Council, 1980, p. 14, and Sloan Commission, 1980, pp. 95-96). Any enterprise is ill-advised to rely excessively on a few sources; multi-purpose institutions are especially so. Moreover, these two sources carry particular danger with their rapid rise. Disproportionate increases in student charges can affect access, foster undue competition, encourage disreputable efforts to retain students, and disrupt the precarious balance between public and private enrollments. As for State appropriations, they are unduly influenced by fluctuations in the economy. According to economist Walter Adams, budget policy is "perversely tied to the business cycle" in that enrollments appear to strengthen during periods of high unemployment at the time when tax revenues grow soft (1977, p. 87). The Louis Harris poll has reported that administrators, trustees, and senior professors, when aware of this increasing reliance on State funds, prefer increased dependence on corporations to government by 72 to 16 percent (Malott, 1978, p. 215).

Several developments have caused this increasing reliance on students and the State for financial support. First, private institutions, which rely to a small degree on direct State aid, have declined in terms of their proportion of enrollments nationwide. Until World War II, these institutions attracted half the students in America. By 1970, their proportion had fallen to 25 percent of all students in higher education, and by 1979 to 21 percent (National Center for Education Statistics, 1981b, pp. 164-165). Second, State appropriations as a percentage of revenues for public institutions increased in virtually every state during the 1970s. This has been especially true in those states, such as California, where the revolt against property taxes, traditionally a source of reve-

nues for Community Colleges, has been the most inflamed. Finally, the changing federal emphasis toward student aid (from $730 million in 1970 to $4.1 billion in 1979) and the converse decline of research and institutional grants has both diminished the federal share of institutional support and encouraged public and private institutions to raise student charges and so capture federal entitlements (Student Financial Aid Policy Study Group, 1980, p. 18; Sloan Commission, 1980, p. 51).

How does California fit into the national patterns? Tables 9 and 10 on pp. 72-73 display the Educational and General Revenues for public and private institutions and a few of the most important sources: student tuition and fees, State government appropriations to institutions, endowment income, and private gifts for general use. Table 9 summarizes these patterns for the United States as a whole and Table 10 presents the corresponding figures for California. We shall analyze the data from two perspectives.

Sources of Support: First, in 1978-79, student tuition and fees as a proportion of revenues for all colleges and universities were much lower in California than in the nation at large (17.0% compared to 26.9%). As could be expected, State appropriations made up part of this difference for public institutions in California (60.7% compared to 56.4% nationally). Both California's and the nation's private institutions were almost equally dependent on student fees (51.5% and 50.3% respectively). California's private institutions received no direct State appropriations compared to other states providing institutional support at 1.7 percent of revenues for private institutions nationwide from State funds directly. This indicates that private institutions elsewhere may use some State appropriations to lower their tuition somewhat. Finally, endowment income and private gifts (excluding financial aid) totaled 9.7 percent of revenues for private institutions in California and 13.8 percent nationally, a significant source of their income. This is a much larger amount from both these sources than is true for public institutions in California and around the nation (.9% each).

Changes in Proportion: Second, changes in the sources of support between 1969-70 and 1978-79 reveal that nationally, tuition and fees remained relatively constant as a source over the decade (26.7% in 1969-70 compared to 26.9% in 1978-79), while in California they increased as a proportion of revenues (14.7% to 17.0%). This increase appears due exclusively to tuition increases among private institutions (42.5% up to 50.3%) while out-of-state tuition and resident fees as a proportion of total revenues remained relatively constant among public institutions during the decade (7.3% to 7.2%). The largest increase among sources of support in California was in State appropriations (47.6% in 1969-70 to 60.7% in 1978-79);

the same trend was evident nationwide as State appropriations increased from 50.6 percent to 56.4 percent during the decade. An important decline in revenues occurred in gifts for private institutions, from 10.0 percent to 7.1 percent in the nation, and from 9.2 percent to 5.0 percent in California.

In sum, the California experience appears to confirm fears that student charges and State appropriations are assuming a preponderant role in postsecondary finance. For the welfare of the institutions, this trend should be halted, no easy challenge.

Certain alternatives do appear on the horizon to reverse this growing dependence. The federal government has recently increased tax incentives for corporate research conducted under university auspices; perhaps more could be justified under the Administration's pledge to promote "re-industrialization." Additionally, Congress might be persuaded to increase indirect cost allowances to support academic functions beyond those directly related to research projects. Further, State appropriations are unlikely to increase at past rates, chiefly becuase the shrinking college-age cohort signals an end to substantial enrollment growth. In the past, new students were funded almost exclusively by the State. Thus, institutions have new incentives, though ones not wholly benign, to solicit funds aggressively from private sources.

Student Charges and Financial Aid

California's policies toward student support of postsecondary institutions are in considerable flux, partly because the State is re-examining its traditions about student charges in public institutions in the wake of fiscal stringency, partly because the State's multiple approaches to providing student aid are being challenged, and partly because federal aid programs are so unstable. Since the impact of student aid on access and its sheer size (see Table 11) are so significant, student support of the institutions--through tuition and fees--is an element of consequence in finance. We shall examine the State's financial policies and the reasons for their current flux.

First, the State's major form of aid for students is through its large subsidy for instruction, called institutional aid, at the three public segments. Due to this support, none of the segments currently charges tuition (defined as payment for the cost of instruction or administration unrelated to student services) to California residents, except for those taking community service or extension courses. Non-residents pay a tuition roughly equal to the cost of instruction in all public segments.

TABLE 9

PROPORTIONS OF EDUCATIONAL AND GENERAL REVENUES REPRESENTED BY SELECTED SOURCES OF INCOME: STUDENT TUITION AND FEES, STATE GOVERNMENT APPROPRIATIONS, ENDOWMENT INCOME AND GIFTS 1969-70 AND 1978-79

United States Total

Revenues	Sector	1969-70 Amounts	1969-70 Proportion	1978-79 Amounts	1978-79 Proportion
Educational & General[a]	Total	$16,593,582,000	100.0%[d]	$40,152,187,000	100.0%[d]
	Public	11,024,817,000	100.0[e]	27,711,323,000	100.0[e]
	Private	5,568,765,000	100.0[f]	12,440,865,000	100.0[f]
Student Tuition & Fees	Total	4,438,486,000	26.7[d]	10,807,210,000	26.9[d]
	Public	1,740,833,000	15.8[e]	4,395,359,000	15.9[e]
	Private	2,697,653,000	48.4[f]	6,411,851,000	51.5[f]
State Government Appropriations to Institutions	Total	5,669,460,000	34.2[d]	15,837,693,000	39.4[d]
	Public	5,583,702,000	50.6[e]	15,632,276,000	56.4[e]
	Private	85,759,000	1.5[f]	205,417,000	1.7[f]
Endowment Income (except student financial aid)[b]	Total	447,329,000	2.7[d]	986,093,000	2.6[d]
	Public	57,084,000	.1[e]	154,092,000	.6[e]
	Private	390,244,000	7.0[f]	832,001,000	6.7[f]
Private Gifts (except student financial aid)[c]	Total	616,867,000	3.7[d]	970,656,000	2.4[d]
	Public	58,340,000	.1[e]	89,033,000	.3[e]
	Private	558,527,000	10.0[f]	881,623,000	7.1[f]

a. Changes in the format for presenting fiscal information between 1969-70 and 1978-79 require that Educational and General expenditures in the latter year be used as a surrogate for Educational and General revenues which are reported in the earlier year.

b. "Endowment income" (except student aid) is reported for 1969-70 while "Unrestricted Endowment Income" is reported for 1978-79, due to changes in the format for collecting the fiscal information. Instructions in the Survey Form indicate that these can be considered roughly equivalent.

c. "Private gifts" (except student aid) is reported for 1969-70 while "Unrestricted Private Gifts, Grants and Contracts" is reported for 1978-79, due to changes in the format for collecting the fiscal information. Instructions in the Survey Form indicate that these can be considered roughly equivalent.

d. This is the proportion of the total Educational and General Revenues represented by this source of income.

e. This is the proportion of the total Educational and General Revenues for public institutions represented by this source of income.

f. This is the proportion of total Educational and General Revenues for private institutions represented by this source of income.

Sources: National Center for Education Statistics, 1973, p. 12.
National Center for Education Statistics, 1981a, p. 12.

TABLE 10

PROPORTIONS OF EDUCATIONAL AND GENERAL REVENUES REPRESENTED BY SELECTED SOURCES OF INCOME: STUDENT TUITION AND FEES, STATE GOVERNMENT APPROPRIATIONS, ENDOWMENT INCOME AND GIFTS 1969-70 AND 1978-79

California

Revenues	Sector	1969-70 Amounts	1969-70 Proportion	1978-79 Amounts	1978-79 Proportion
Educational & General[a]	Total	$1,910,446,000	100.0%[d]	$4,749,993,000	100.0%[d]
	Public	1,519,316,000	100.0[e]	3,674,935,000	100.0[e]
	Private	391,129,000	100.0[f]	1,075,058,000	100.0[f]
Student Tuition & Fees	Total	276,254,000	14.7[d]	805,147,000	17.0[d]
	Public	108,382,000	7.3[e]	264,149,000	7.2[e]
	Private	167,872,000	42.9[f]	540,998,000	50.3[f]
State Government Appropriations to Institutions	Total	723,855,000	37.9[d]	2,229,381,000	46.9[d]
	Public	723,855,000	47.6[e]	2,229,381,000	60.7[e]
	Private	0	0.0[f]	0	0.0[f]
Endowment Income (except student financial aid)[b]	Total	28,981,000	1.5[d]	74,305,000	1.6[d]
	Public	7,326,000	0.5[e]	23,296,000	.6[e]
	Private	21,655,000	5.5[f]	50,609,000	4.7[f]
Private Gifts (except student financial aid)[c]	Total	42,636,000	2.2[d]	63,226,000	1.3[d]
	Public	6,726,000	0.4[e]	9,459,000	.3[e]
	Private	35,910,000	9.2[f]	53,767,000	5.0[f]

a. Changes in the format for presenting fiscal information between 1969-70 and 1978-79 require that Educational and General expenditures in the latter year be used as a surrogate for Educational and General revenues which are reported in the earlier year.

b. "Endowment income" (except student aid) is reported for 1969-70 while "Unrestricted Endowment Income" is reported for 1978-79, due to changes in the format for collecting the fiscal information. Instructions in the Survey Form indicate that these can be considered roughly equivalent.

c. "Private Gifts" (except student aid) is reported for 1969-70 while "Unrestricted Private Gifts, Grants and Contracts" is reported for 1978-79, due to changes in the format for collecting the fiscal information. Instructions in the Survey Form indicate that these can be considered roughly equivalent.

d. This is the proportion of the total Educational and General Revenues represented by this source of income.

e. This is the proportion of total Educational and General Revenues for public institutions represented by this source of income.

f. This is the proportion of total Educational and General Revenues for private institutions represented by this source of income.

Sources: National Center for Education Statistics, 1973, p. 24.
National Center for Education Statistics, 1981a, p. 124.

TABLE 11

STUDENT FINANCIAL AID IN CALIFORNIA, 1979-80

Source	Dollars, 1979-80	Proportion of Total Aid
FEDERAL		
Major Aid Programs [a]	$347,071,000	
All Other Programs [b]	521,927,000	
Total	$868,998,000	58.9%
STATE (as a direct source)		
Cal Grant A	$ 50,097,000	
Cal Grant B	18,506,000	
Cal Grant C	2,475,000	
Graduate Fellowships	2,698,000	
Vocational Rehabilitation Training Funds	36,422,000	
All Other Sources	3,013,000	
Total	$113,211,000	7.7%
STATE (through the institutions or sources within public institutions)		
UC Institutional Scholarships	$ 17,658,000	
UC Institutional Grants	10,184,000	
CSUC Educational Opportunity Program (grants)	6,826,000	
CCC Extended Opportunity Program and Services (grants)	9,297,000	
All Other Sources	99,975,000	
Total	$143,940,000	9.7%
PRIVATE		
Federally Insured Loans	$225,000,000	
Other Loans and College Work Study	22,075,000	
Public Institutions	24,980,000	
Private Institutions	77,555,000	
Total	$349,610,000	23.7%
TOTAL AID IN CALIFORNIA INSTITUTIONS, 1979-80	**$1,475,859,000**	**100.0%**

a. Includes Basic Educational Opportunity Grants, Supplemental Educational Opportunity Grants, National Direct Student Loans, College Work Study (from federal sources), and Supplemental State Incentive Grants.

b. Includes numerous other programs, such as Veterans' benefits, Social Security Education Benefits, federally insured/guaranteed student loan subsidies, and National Merit Scholarships.

Sources: For the major aid programs of the Federal Government, Gladieux and Others, 1980, p. 20. For all other information, Student Financial Aid Policy Study Group, 1980, pp. 4-5.

The "no tuition" policy, however, is more apparent than real, at least within the four-year segments. The University of California now imposes a Registration Fee, an Educational Fee, and Student Activity Fees which together average about $1,000 a year per student. The State University charges a Student Services Fee and a Student Activities Fee, but their level--approximately $240 per full-time student in 1981-82--is substantially less than the fee levels at the University. Community College districts are authorized to charge a variety of incidental fees, which rarely exceed $40 a year per student. Thus, the State subsidizes instruction heavily, while most students able to pay are expected to bear most expenses for student services, except those attending Community Colleges.

Second, the State greatly expanded its financial aid efforts during the 1970s to promote access for needy students and allow them to choose among a range of institutions. Total State funding for the three Cal Grant programs increased more than five fold between 1970 and 1979, but growth has slowed since the fiscal crisis induced by Proposition 13.

Third, the State has fashioned several programs with special purposes. Originally designed primarily for students attending independent colleges, the State financial aid programs have proliferated to serve other target groups and certain vocational students. According to a recent report commissioned by the Legislature, the current array of State programs resulted from "the uncoordinated growth and overlap of student aid programs . . . . [Many] programs [are] too small to be known to the full universe of eligible applicants and increase counseling difficulties" (Student Financial Aid Policy Study Group, 1980, pp. 27, 30). This ad hoc approach is natural since the Legislature, over the years, has attempted to concentrate its resources in areas of special concern. One result has been to erode the share of total Cal Grant funds and awards to students attending independent colleges and universities although total student aid funds received by students at independent institutions has increased at a rate greater than funds received by students in the public segments.

Fourth, the State has taken account of the rapid increase of federal student aid during the 1970s, without question Washington's major contribution to postsecondary education. In 1975, the Legislature established the policy that state aid funds should supplement, not supplant, federal funds. Although a sensible approach, the practical problems of implementing this strategy have proven troublesome.

These policies are now being reviewed because circumstances are so different from those earlier. The following issues are the controversies most often debated:

1. What Activities Within Educational Institutions Should be Paid for by Students? Recent research confirms that low student charges are an effective strategy to promote access to postsecondary education (Nelson, 1978; Stampen, 1980, pp. 23-36). Nevertheless, California's tradition that students should not pay any of the direct costs of instruction is unusual in the nation. Some argue that, since personal benefits accrue from instruction (especially in the enhanced earning potential within professions such as medicine), students should assume some portion of their instructional cost. Furthermore, the high level of fees at the University, half of which are used for financial aid, raise the issue of where "fees" become defacto "tuition" since State funds are being effectively replaced by student monies, even though these monies are not being used to cover directly a portion of instructional costs.

2. How Should Student Charges be Adjusted Annually? After several years of development, the University and the State University established an annual mechanism to adjust their fees. For the 1981-82 budget, the Legislature imposed a reduction on these segments which, in effect, increased fees beyond the levels indicated in the agreed-upon formulas. Of course, this disrupted their regular pattern of fee adjustment. Moreover, the spread in annual charges is increasing among the segments, from zero at the Community Colleges to $1,000 at the University. The gap in fees for full-time resident students between the Community Colleges and the State University increased from a maximum of $219 in 1980-81 to $270 in 1981-82, while the gap between University and State University fees increased from $550 to $700. If this spread continues to increase at a compound rate each year, enrollment shifts among the segments are likely. The State's policies on fee levels will need to deal with this spread.

3. Will the State Replace Federal Aid Lost Because of Budget Cuts? Federal programs will be reduced in 1981-82, especially for middle-income students. Despite its policy of "supplementing, not supplanting federal dollars," the State will be under pressure to replace some of these federal funds, if only because this policy did not anticipate such federal reductions.

4. Will the State Adopt Some Fundamental Reforms in Its Approach to Student Aid? For years, the State financial aid programs grew without a comprehensive scrutiny or review. In recognizing this, the 1978 Legislature created a Policy Study Group to study ways to best fulfill the purposes of financial aid, to determine the appropriate level of funding and methods of distribution, to clarify the responsibilities of federal, State, institutional and private agencies for funding, and to

implement the partnership (including students) responsible for funding institutions in California. The Group adopted 34 recommendations, with three areas most important:

- The consolidation of the major State programs into a new Cal Grant program;
- The strengthening of "outreach" efforts to afford greater opportunity in postsecondary education to more low-income and minority students; and
- An expanded role for the California Student Aid Commission as the provider of policy research and advice to the Legislature concerning student financial aid and as the major forum for debate over changes in aid policy (Student Financial Aid Policy Study Group, 1980, transmittal letter).

The consolidation of the Cal Grant programs would depart from the State's tradition of targeting its programs for particular groups, and is certain to be resisted by those groups which receive the benefits as their statutory prerogative.

The Role of the State in Financing Private Institutions

California has an extensive array of independent degree-granting colleges and universities as well as large numbers of private vocational schools which offer certificate programs. The Master Plan of 1960 explicitly supported State aid for these institutions on three grounds:

- Public institutions would be growing rapidly and excess capacity within the independent sector could save capital costs;
- Qualified needy students should have the opportunity, at public expense, to attend a high tuition institution if they qualified; and
- The State should contract for special services which were not available within public institutions.

As described earlier, the State implemented this policy through student financial aid programs and contracts, chiefly for medical services and training.

In 1975, the Legislature directed the Postsecondary Education Commission to conduct a comprehensive study of independent institutions, with special emphasis on assessing their financial condition.

Using data for 68 degree-granting colleges and universities for the 1973 and 1975 fiscal years, the Commission report reached the following conclusions:

> While there is some evidence of institutional weakness and potential deterioration, the majority of California's independent colleges and universities seem to be in relatively stable financial health, with revenues increasing faster than expenditures. This financial health, which is partially the result of growing State and federal programs of student aid, cover the range of independent institutions.
>
> . . . .
>
> While there is little evidence of a major retrenchment within the independent sector in faculty staffing, there is considerable evidence of tight budgets and steady financial erosion, as indicated by the restraint in faculty salary increases and by the cutback in other nonacademic staff. . . . This trend is particularly true for the small Liberal Arts Colleges with enrollments under 1,000.
>
> . . . .
>
> The State's student-assistance programs, particularly its [Cal Grant A] program, are of vital importance to the independent sector. These programs have been successful in achieving the dual objectives of (1) providing the necessary financial assistance so that capable students with demonstrated need have the ability to choose the most appropriate postsecondary educational opportunity, and (2) providing assistance to individuals who desire to enroll in an independent college or university (California Postsecondary Education Commission, 1978c, pp. 2-3).

How accurate is this assessment for these colleges as they enter the 1980s? Without data comparable to those in the Commission's earlier study, no firm conclusions are warranted, but certain evidence suggests that, in some cases, their fiscal situation has deteriorated. Nationwide, the National Center for Education Statistics predicts that 200 small private liberal arts colleges may close in the 1980s, some of which are likely to be in California (Immaculate Heart in Los Angeles and Lone Mountain in San Francisco have already closed their doors). Since the budgets of independent institutions are extremely sensitive to enrollment changes because of heavy reliance on tuition as their major source of income, even small declines in the number of students can pressure institutions

into serious retrenchment (Knudsen, 1980). Several California institutions appear to be on this critical edge: data from 32 members of the Association of Independent California Colleges and Universities show a very small increase (4%) in full-time matriculations among freshmen between 1977 and 1980, and a 3 percent decline in the number of transfer students during those years (Odell and Thelin, 1980, p. 43). In spite of the increase in freshmen, the number of new Cal Grant recipients has declined by 20.3 percent among independent institutions during the past three years which, given large increases in federal aid and loans, does not necessarily mean that their students are suffering disproportionately. It does suggest, however, that the trend of State aid coupled with federal reductions could impair the ability of some students at independent institutions to pay tuition increases. Coupled with the pervasive pressures of high inflation, these trends are ominous for the fiscal health and vitality of the independent sector.

Even if the State believed there were compelling reasons to assist private institutions at the time of the Master Plan, have circumstances changed enough to justify scaling back that commitment? A draft report by the Department of Finance in 1978 argued that two of the three original purposes of aid were moot: public institutions now had excess capacity and contracts were unconstitutional. Further, the report concluded that the Cal Grant A awards to students at independent institutions "is not cost effective in comparison to the public sector cost which would have resulted without the award" (California State Department of Finance, 1978). Despite methodological difficulties in measuring "cost-effectiveness" and extensive criticism of the report, its conclusions posed a serious, if narrowly focused challenge to the State's policy of supporting students at independent institutions.

From today's perspective, though, the policy of providing choices for students and indirectly assisting private institutions still appears to be in the State's long-range interests, at least to the extent of current commitments. In addition to reasons previously cited, two have emerged since the Master Plan:

- California provides a small amount of its total investment in postsecondary finance to independent institutions, roughly 2.7 percent of General Fund expenditures in 1978-79. This is much less than in most states wth extensive systems of postsecondary education (Student Financial Aid Policy Study Group, 1980, p. 34; "Aid to Students," 1981, p. 1).

- Independent institutions play a prominent role in equal educational opportunity since many members of racial and ethnic minorities choose to attend them (University of California, 1980, p. 4; California Postsecondary Education Commission, 1977, p. 13).

After reviewing arguments on this issue, the Student Financial Aid Policy Study Group recommended that the State continue its current policies for student financial aid, but cautioned that "state student aid policy should [not] be geared to ensure the survival of every independent college." But where students choose independent colleges, the State should be prepared to assist them if parents and students "make (as they do now) a greater financial effort than they would have, had a public institution been chosen" (p. vii).

Even if current State policy is reaffirmed, several prominent issues remain concerning the State's role in indirectly financing independent institutions:

- Will the State replace federal student aid funds and loan guarantees if these are reduced? These cuts will be most serious for middle-income students attending private institutions.

- Should the State ensure a portion of student aid for non-public institutions? Recent changes to the eligibility ceiling for Cal Grant A were adopted by the Student Aid Commission partly because, it was alleged, the ceiling was interfering with one of the program's purposes: to fund students at independent institutions. Although this is one of the historical purposes of the program, carving out funds for special groups contradicts the spirit of the report of the Student Financial Aid Policy Study Group.

- Should the State refine and clarify its policies for aiding students in private vocational schools? One difficulty is the lack of information about student needs at such schools; the most recent "Institutional Survey of Financial Aid Resources for Students" by the Student Aid Commission does not include credible information on the private vocational sector, even though students receive Commission funds through Cal Grant C. Another problem of coordination is the number of agencies responsible for oversight or financing: the California Department of Employment Development, the California Department of Rehabilitation, and the Office of Private Postsecondary Education. (A recent investigation into the effectiveness of aid to vocational students, prompted by AB 576 [Chapter 1011, 1979], does not provide much guidance in these areas.)

Even if all these controversies are resolved in favor of greater State assistance for private colleges, universities, and schools, current realities of declining numbers of young people and diffi-

culties of the American economy make their futures uncertain. State aid for them is likely to remain a small, though crucial, part of California's overall approach to financing postsecondary education.

CONCLUSION

This essay has described the financing of postsecondary institutions in California during the past 20 years and has speculated on their prospects. It has argued that the State's general policies have not been random or haphazard, changing with different political climates. Rather, the policies for financing the institutions have been powerfully shaped by tenets within California's Master Plan (especially its emphasis on access), by the peculiar nature of educational "costs," and by the State's overall fiscal system. In addition, the public segments as a whole have received a remarkably uniform proportion of State and local resources throughout the past decade. To be sure, California's institutions suffered a substantial decline in revenues compared to their counterparts elsewhere as part of the general retrenchment after Proposition 13, but they have not lost their traditional share of State and local revenues in the competition among services within California. Perhaps the major reason for this consistency has been the State's continuing commitment to certain finance policies for postsecondary education and the established practices for implementing these policies.

California enjoys an enormous, distinguished, and diverse system of postsecondary education which has served the State well and, in turn, been amply supported. As a whole, the State's record of postsecondary finance since the 1960 Master Plan has much to commend it. The troubled 1980s promise to test that record.

REFERENCES

Academy for Educational Development. Financing Postsecondary Education in California. Sacramento: Joint Committee on the Master Plan for Higher Education, California Legislature, 1973.

Adams, Walter. "Economic Problems Confronting Higher Education: Financing Public Higher Education." Journal of the American Economic Association, 67:1 (February 1977) 86-89.

"Aid to Students at Private Colleges Raised by 20 States, Survey Finds." The Chronicle of Higher Education, 22:23 (July 27, 1981), pp. 1, 9.

Balderston, Frederick E. "Financing California's System of Postsecondary Education" in Neil J. Smelser and Gabriel Almond, eds., Public Higher Education in California, pp. 143-159. Berkeley and Los Angeles: University of California Press, 1974.

Balderston, Frederick E.; and Weathersby, George B. PPBS in Higher Education Planning and Management: From PPBS to Policy Analysis. Berkeley: Ford Foundation Program for Research in University Administration, University of California, 1972.

Bishop, John. "Income, Ability, and the Demand for Higher Education." Duplicated Report. Madison: Institute for Research on Poverty, University of Wisconsin, 1975.

Bishop, John, and Van Dyk, Jane. "Can Adults be Hooked on College: Some Determinants of Adult College Attendance." Journal of Higher Education, 48 (January/February 1977) 39-62.

Board of Governors, California Community Colleges. Long-Term Finance Plan: Recommendations for the 1980s. Sacramento: California Community Colleges, 1979.

Bowen, Frank M.; and Glenny, Lyman A. Uncertainty in Public Higher Education: Responses to Stress at Ten California Colleges and Universities. A Report to the California Postsecondary Education Commission. Sacramento: California Postsecondary Education Commission, 1980.

Bowen, Howard R. The Costs of Higher Education: How Much Do Colleges and Universities Spend and How Much Should They Spend? San Francisco: Jossey-Bass, 1980.

California Community Colleges. A Survey of California Public Attitudes Toward the California Community Colleges. Sacramento: California Community Colleges, 1979b.

California Legislature. Report of the Joint Committee on the Master Plan for Higher Education. Sacramento: California Legislature, September 1973.

California Postsecondary Education Commission. Planning for Postsecondary Education in California: A Five-Year Plan, 1976-81. Commission Report 75-4. Sacramento: The Commission, 1975.

---. Equal Educational Opportunity in California Postsecondary Education, Part II. Commission Report 77-4. Sacramento: The Commission, 1977.

---. "Annual Summary of Program Review Activities, 1977-78," Adopted December 11, 1978a.

---. Formal Education and Training Programs Sponsored in California by Business, Industry, Government, and the Military. Commission Report 78-17. Sacramento: The Commission, 1978b.

---. State Policy Toward Independent Postsecondary Institutions. Commission Report 78-3. Sacramento: The Commission, 1978c

---. The Price of Admission: An Assessment of the Impact of Student Charges on Enrollments and Revenues in California Public Higher Education. Commission Report 79-13. Sacramento: The Commission, 1979.

---. Budget Formulas for Declining Enrollments. Sacramento: The Commission, 1980a.

---. Determining the Cost of Instruction in California Public Higher Education: A Feasibility Study of Alternative Methods. Commission Report 80-12B. Sacramento: The Commission, 1980b.

---. The Challenges Ahead: A Planning Agenda for California Postsecondary Education, 1982-1987. Commission Report 81-25. Sacramento: The Commission, 1981a.

---. Director's Report, January 1981: Surveying the Seventies. Commission Report 81-1B. Sacramento: The Commission, 1981b.

---. Recent Trends in Off-Campus Education. Sacramento: Commission, December 1981c.

---. California College-Going Rates and Community College Transfers: 1980 Update. Commission Report 82-2. Sacramento: The Commission, 1982a.

---. Equal Educational Opportunity in California Postsecondary Education, Part IV. Sacramento: The Commission, 1982b.

---. The Student Charges Model: A Description of Version 3. Commission Report 82-5. Sacramento: The Commission, 1982c.

California State Controller. 1978-79 Annual Report, Financial Transactions Concerning School Districts of California. Sacramento: California State Controller, 1980.

California State Department of Education. Guide to California Private Postsecondary Career Education. Sacramento: The Department, 1980.

California State Department of Finance. California Student Aid Programs: An Analysis of Program Features. Sacramento: The Department, 1978.

California State University. Statistical Abstract (to July 1980). Long Beach: California State University, 1981.

California Tax Reform Association. Tax Back Talk, 4:10 (November 1980).

Carnegie Commission on Higher Education. Higher Education: Who Pays? Who Benefits? Who Should Pay? New York: McGraw-Hill, 1973.

Carnegie Council on Policy Sudies in Higher Education. Three Thousand Futures: The Next Twenty Years for Higher Education. San Francisco: Jossey-Bass, 1980.

Cheit, Earl F. The New Depression in Higher Education: A Sudy of Financial Conditions at 41 Colleges and Universities. New York: McGraw-Hill, 1971.

City University of New York Office of Program and Policy Research. Application and Enrollment of CUNY Freshmen: Fall 1975 vs. Fall 1976. New York: The City University of New York, 1977a.

City University of New York Office of Program and Policy Research. The City University of New York Data and Issues. New York: The City University of New York, 1977b.

Commission on State Finance. Staff Report on General Fund Reserves and Expenditures, 1980-81 and 1981-82 Fiscal Years. Sacramento: The Commission, 1981.

Coordinating Council for Higher Education. California's Needs for Additional Centers of Public Higher Education. Coordinating Council Report 1014. Sacramento: The Council, 1964.

---. The Master Plan Five Years Later. Coordinating Council Report 66-1 (Revised). Sacramento: The Council, 1966.

---. The Development of the State's Programming and Budgeting System in California Public Higher Education. Coordinating Council Report 68-16. Sacramento: The Council, 1968.

---. Student Charges: A Study of the Possible Distribution, Use, and Techniques of Administering Student Charges in the University of California and the California State Colleges. Coordinating Council Report 1035. Sacramento: The Council, 1969.

---. The California Master Plan for Higher Education in the Seventies and Beyond: Report and Recommendations of the Select Committee on the Master Plan for Higher Education. Coordinating Council Report 72-6. Sacramento: Coordinating Council for Higher Education, November 1972.

Deutsch, Monroe E.; Douglass, Aubrey A.; and Strayer, George D. A Report of a Survey of the Needs of California in Higher Education. (Strayer Committee Report). Berkeley: University of California Press, 1948.

Division of Agricultural Sciences, University of California Berkeley. Local School Revenues and Expenditures in California. Berkeley: The Division, 1980.

Education Commission of the States. Tax and Expenditure Referenda: An Analysis of Public Opinion, Voting Behavior, and Campaigns in Four States. Denver: The Commission, 1980.

Evans, Jerry. Living With Topsy: Twenty-Five Years of State Budget Growth in California. Sacramento: Public Affairs Research Group, 1976.

Frances, Carol. The Short-Run Outlook For Higher Education. Washington, D.C.: American Council on Education, 1980.

Gladieux, Lawrence E.; and others. Federal Support of Higher Education and Implications for the States. Washington, D.C.: Washington Office, College Entrance Examination Board, 1980.

Graves, Mary Ann. "Financing California Government in the 1980s." October 20, 1980.

Gross, Theodore L. "How to Kill a College: The Private Papers of a Campus Dean." Saturday Review, February 4, 1978, 13-20.

Halstead, D. Kent. Higher Education Prices and Price Indexes. Washington, D.C.: U.S. Government Printing Office, 1975; Supplement, 1978.

Hitch, Charles. "Testimony to the Select Committee on the Master Plan, December 21, 1971," quoted by Frederick E. Balderston, "Financing California's System of Postsecondary Education," in Neil J. Smelser and Gabriel Almond, eds., Public Higher Education in California. Berkeley and Los Angeles: University of California Press, 1974.

Hoenack, Stephen A. "Private Demand for Higher Education in California." Unpublished Ph.D. dissertation, University of California, Berkeley, 1967.

Hoenack, Stephen A., and Weiler, William C. "Cost-Related Tuition Policies and University Enrollments." The Journal of Human Resources, 10:3 (Summer 1975) 332-360.

Holy, T. C., and Semans, H. H. A Study of Faculty Demand and Supply in California Higher Education, 1957-1970. Prepared for the Liaison Committee of the Regents of the University of California and the State Board of Education.) Berkeley: University of California Press, 1958.

Illinois Community College Board. Relationship Between Student Tuition/Fees and Student Enrollments in Illinois Public Community College Districts FY1971 Through FY1979. Springfield: The Board, 1980.

Jackson, Gregory A., and Weathersby, George B. "Individual Demand for Higher Education: A Review and Analysis of Recent Empirical Studies." Journal of Higher Education, 46:6 (November/December 1975) 623-652.

Jamison, Conrad C. California Tax Study: An Analysis of Revenues and Expenditures of State and Local Government in California. Los Angeles: Security Pacific National Bank, 1981.

Jenny, Hans. Hang-Gliding, or Looking for an Updraft: A Study of College and University Finance During the 1980s. Wooster, Ohio: The College of Wooster, 1980.

Kimball, Larry L.; and Jaquette, Peter. "The UCLA Forecast for California," UCLA Business Forecast for the Nation and California in 1981. Los Angeles: University of California, Los Angeles, 1980.

Kohn, Meir; Manski, Charles; and Mundel, David. "An Empirical Investigation of Factors Which Influence College Going Behavior." Santa Monica: The Rand Corporation, 1974.

Knudsen, Larry. "Small Colleges Face a Money Squeeze," California Business, 15:9 (September 1980) 98.

Kost, Robert J. "Industry," in Philip E. Frandson, ed., Power and Conflict in Continuing Education, pp. 38-60. Los Angeles: Wadsworth, 1980.

Kramer, Martin. The Venture Capital of Higher Education: The Private and Public Sources of Discretionary Funds. Berkeley: Carnegie Council on Policy Studies in Higher Education, 1980.

Leslie, Larry L. "Cost Data: Reduction or Intensification of Uncertainty?" Draft chapter for a forthcoming publication on higher education, December 1980.

Malott, R. H. "Corporate Support of Education: Some Strings Attached," Harvard Business Review, 56:4 (July/August 1978) 212-220.

Marshak, Robert E. "Open Access, Open Admissions, Open Warfare: Part I." Change, 13 (November/December 1981), 12-19, 51-53.

---. "Open Access, Open Admissions, Open Warfare: Part II." Change, 14 (January/February 1982), 30-42.

Master Plan Survey Team. A Master Plan for Higher Education in California, 1960-1975. (Prepared for the Liaison Committee of the State Board of Education and The Regents of the University of California). Sacramento: California State Department of Education, 1960.

McConnel, T. R.; Holy, T. C.; and Semans, H. H. A Restudy of the Needs of California in Higher Education. Sacramento: California State Department of Education, 1955.

McPherson, Michael S. "The Demand for Higher Education," in David Breneman and Chester E. Finn, Jr., (eds.), Public Policy and Private Higher Education. Washington, D.C.: The Brookings Institution, 1978, pp. 143-196.

Meisinger, Richard J. State Budgeting for Higher Education: The Uses of Formulas. Berkeley: Center for Research and Development in Higher Education, University of California, Berkeley, 1976.

National Association of College and University Business Officers. Costing for Policy Analysis. Washington, D.C.: The Association, 1980.

National Center for Education Statistics. Financial Statistics of Institutions of Higher Education: Current Funds, Revenues, and Expenditures, 1969-70. Washington, D.C.: U.S. Government Printing Office, 1973.

---. Financial Statistics of Institutions of Higher Education, Fiscal Year 1979. Washington, D.C.: U.S. Government Printing Office, 1981a.

---. The Condition of Education, 1981 Edition. Washington, D.C.: U.S. Government Printing Office, 1981b.

Nelson, Susan C. The Equity of Public Subsidies for Higher Education: Some Thoughts on the Literature. Papers in Education Finance No. 5. Denver: Education Commission of the States, 1978.

Odell, Morgan; and Thelin, John R. Keeping Pace: Trends in Federal and State Financial Aid for Students in California's Independent Colleges and Universities, 1975-76 to 1980-81. Santa Ana: Association of Independent California Colleges and Universities, 1980.

Office of the Legislative Analyst. Analysis of the 1979-80 Budget Bill. Sacramento: Office of the Legislative Analyst, 1979.

---. Analysis of the 1980-81 Budget Bill. Sacramento: Office of the Legislative Analyst, 1980a.

---. Analysis of the 1981-82 Budget Bill. Sacramento: Office of the Legislative Analyst, 1981a.

---. "A Review of the AB 8 Deflator and Proposition 4." Statement to the Senate Finance Committee, California Legislature, February 12, 1981b.

Radner, Roy, and Miller, Leonard S. Demand and Supply in U.S. Higher Education. New York: McGraw-Hill, 1975.

---. Demand and Supply in U.S. Higher Education: A Technical Supplement. New York: McGraw-Hill, 1975.

Rand Corporation. The Equity Effects of Restraints on Taxes and Spending. Rand Paper Series No. P-6469. Santa Monica: Rand Corporation, 1980.

Rourke, Francis E.; and Brooks, Glenn E. The Management Revolution in Higher Education. Baltimore: Johns Hopkins, 1966.

Semans, H. H., and Holy, T. C. Study of the Need for Additional Centers of Public Higher Education in California. Sacramento: State Department of Education, 1957.

Sloan Commission on Government and Higher Education. A Program for Renewed Partnership. Cambridge, Mass.: Ballinger, 1980.

Speich, Don F.; and Weiner, Stephen S. In the Eye of the Storm: Proposition 13 and Public Education in California. Washington, D.C.: Institute for Educational Leadership, George Washington University, 1980.

Stampen, Jacob. The Financing of Public Higher Education. AAHE-ERIC/Higher Education Research Report No. 9, 1980. Washington, D.C.: American Association for Higher Education, 1980.

State of Washington Council for Postsecondary Education. Tuition and/or Required Fees. Olympia: The Council, 1982.

Student Financial Aid Policy Study Group. A Report to the California Legislature. Sacramento: The Study Group, 1980.

Tennessee Higher Education Commission. Allocation of State Funds on a Performance Criterion: The Performance Funding Project of the Tennessee Higher Education Commission. Nashville: The Commission, 1979.

University of California. The University of California: A Multi-Campus System in the 1980s. Report of the Joint Planning Committee. Berkeley: University of California, 1979.

---. Report of the Task Group on Factors Affecting Student Choice. Berkeley: Office of the Academic Vice President, University of California, 1980.

Wildavsky, Aaron. The Politics of the Budget Process. Boston: Little-Brown, 1974.

A Master Plan for Higher Education in California, 1960-1975. 6(Prepared for the Liaison Committee of the State Board of Education and The Regents of the University of California.) Sacramento: California State Department of Education, 1960.

Report of a Survey of the Needs of California in Higher Education. 6(Strayer Committee Report.) Berkeley: University of California Press, 1948.

Restudy of the Needs of California in Higher Education. Sacra-6mento: State Department of Education, 1955.

Study of Faculty Demand and Supply in California Higher Education, 61957-1970. (Prepared for the Liaison Committee of the Regents of the University of California and the State Board of Education.) Berkeley: University of California Press, 1958.

Study of the Need for Additional Centers of Public Higher Education 6in California. Sacramento: State Department of Education, 1957.

The California Postsecondary Education Commission was created by the Legislature and the Governor in 1974 as the successor to the California Coordinating Council for Higher Education in order to coordinate and plan for education in California beyond high school. As a state agency, the Commission is responsible for assuring that the State's resources for postsecondary education are utilized effectively and efficiently; for promoting diversity, innovation, and responsiveness to the needs of students and society; and for advising the Legislature and the Governor on statewide educational policy and funding.

The Commission consists of 15 members. Nine represent the general public, with three each appointed by the Speaker of the Assembly, the Senate Rules Committee, and the Governor. The other six represent the major educational systems of the State.

The Commission holds regular public meetings throughout the year at which it takes action on staff studies and adopts positions on legislative proposals affecting postsecondary education. Further information about the Commission, its meetings, its staff, and its other publications may be obtained from the Commission offices at 1020 Twelfth Street, Sacramento, California 98514; telephone (916) 445-7933.

Assembly Concurrent Resolution No. 81—Relative to student charges.

LEGISLATIVE COUNSEL'S DIGEST

ACR 81, Hart. Student charges.

This measure would direct the California Postsecondary Education Commission to conduct a study of the impact of student charges upon access to public postsecondary education and present its recommendations to the Governor and the Legislature by May 1, 1982.

WHEREAS, The State of California has a long-standing history of tuition-free, low-cost public postsecondary education; and

WHEREAS, Severe state budget constraints necessitate an examination of public postsecondary school finance, including student fees and tuition; and

WHEREAS, There exists no comprehensive state policy concerning the appropriate use of student fees and tuition; now, therefore, be it

Resolved by the Assembly of the State of California, the Senate thereof concurring, That the California Postsecondary Education Commission conduct a study of the impact of student charges on access to public postsecondary education; and be it further

Resolved, That the study include recommendations for state policy on these topics and others relevant to the discussion of student charges, including:

(1) The appropriate relationship between individual and public levels of financial support for postsecondary education.

(2) Which costs of university operations are appropriately borne by students, and the proportion of the expenditures for these operations that should be financed by student charges.

(3) The impact of student charges upon each public postsecondary segment's ability to realize its role and mission in the California Master Plan for Higher Education.

(4) The appropriate distribution of student financial aid among all needy California postsecondary students; and be it further

Resolved, That the California Postsecondary Education Commission conduct this study with the advice and participation of: a student from each public postsecondary segment, appointed by the appropriate student organization; a representative from the administration of each of the segments, appointed by the chief executive of each of the segments; a faculty representative from each of the public postsecondary segments, appointed by the faculty governing body of each of the segments; and a representative each from the Legislative Analyst, the Department of Finance, and the California Student Aid Commission; and be it further

Resolved, That the study be presented to the Governor and the Legislature by May 1, 1982.